E Nature and Space

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Clean development or the development of dispossession? The political economy of wind parks in Southern Mexico

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Abstract

Through an investigation of the political economy of wind park development in Oaxaca, southern Mexico, I explore the contested meaning of environmental justice. I contend that, despite their seemingly benign image, wind parks in Oaxaca operate within a spatially abstracted, colonial epistemology of capital-centred development. This involves a remaking of space and an appropriation of nature on behalf of capital. Concomitantly, it also involves a process of dispossession for Indigenous communities, foreclosing alternative pathways of development. I contrast this project of place-making with a subaltern-centred conception of environmental justice informed by Indigenous resistance.

Keywords

Uneven development, environmental justice, indigenous resistance, Mexico, Oaxaca

Introduction

In this article, I explore the notion of environmental justice and its relationship to projects of clean development. Via an investigation into the political economy of wind park development in Oaxaca, southern Mexico, I explore the contested place-making that such projects imply (with contestation coming from largely Indigenous social groups). I assert that within the project of 'clean' energy that is being rolled out in Oaxaca, there is a concomitant process of dispossession taking place that re-produces colonial power relations (both epistemically and materially). I thereby contribute to a growing body of literature that engages in questions of environmental justice in the context of critical theory (see *inter alia* Böhm

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and Dabhi, 2009a; Holifield et al., 2010, Pellow, 2018; Scholsberg, 2013; Sikor and Newell, 2014). I specifically respond to a recent call for more empirically-grounded research on carbon offsetting, while putting such place-specific empirical work into broader debates about the meaning of environmental justice and the neoliberalisation of nature (Boyd and Goodman, 2011; Castree, 2008; Corbera and Martin, 2015: 2023).

The scope of what constitutes environmental justice has expanded into a global concern (Walker, 2009). However, environmental justice itself remains highly-contested as a concept (Holifield et al., 2010). Newell and Bumpus (2012: 51) note that empirical and theoretically-informed work on understanding the scalar power relations involved in carbon markets and their impacts on everyday subaltern livelihoods have been lacking. Even fewer studies exist that explore renewable energy projects that are based in the Global South and with Southern perspectives on such renewable energy projects in mind (Torres Contreras, 2020: 21). Specifically, wind parks have been identified as an empirically under-examined element of critical work that looks at the nexus between neoliberalism and nature (Siamanta, 2019). The article contributes to filling these lacunae.

A key focus in this article is the cognitive and material injustices linked to clean development. As wind parks in southern Mexico are, in the majority, financed though the Clean Development Mechanism (CDM), this is examined as the wider epistemological framing for the place-making projects taking place. I thereby contribute to the critical literature on the CDM by exploring it as a practice of epistemic violence. This adds a further dimension to existing literature that has emerged on 'carbon colonialism' referring to the way Northern countries have used emission trading schemes to continue their domination of the Global South (Bachram, 2004; Bumpus and Liverman, 2011). My focus on resistance also engages with what De Sousa Santos (2016: 124) refers to as 'an epistemology of seeing' beyond hegemonic conceptions of the world to open the possibilities of subaltern geographies (Jazeel, 2014).

At first blush, struggles against the development of wind parks might seem to be a curious one to invoke when reflecting on environmental justice. While it is easy to identify with and support groups opposed to extractive industries (for example the Ogoni people in Nigeria), or those communities who have stood in opposition to logging or mining activities (that likewise can be seen to devastate the local environment), the issue of opposing wind farms can appear, *prima facie*, to be more ambiguous. This is due to the renewable nature of the energy and its clean credentials in the public mind.[1] Couched within the global struggle against climate change, wind-based energy generation is viewed by many not only as a positive step in ameliorating carbon dioxide emissions but indeed a *central component* of such a strategy. Might the opposition to wind park development in Oaxaca therefore be a form of NIMBYism? Alternatively, might we view it as a justifiable form of dispossession that serves a greater (utilitarian) good on a wider scale (e.g. national and global)? It is here that I make my intervention, exploring how the place-based claims of groups such as the *Asamblea Popular de los Pueblos de Juchitán* (APPJ – Popular Assembly of the Peoples of Juchitán) in Oaxaca, contest national, regional and global narratives of sustainable development and environmental justice. The APPJ juxtapose their place-based conceptions of environmental justice to globally and nationally conceived solutions for climate change, emphasising impacts on everyday livelihoods and other key concerns. Such claims are further supported by local NGOs seeking to defend Indigenous rights.

Two key arguments run through this paper. First I demonstrate that hegemonic conceptualisations of environmental justice (such as the CDM) operating at a global scale have become enrolled within regional and national projects of development and place-making. Second I argue that these conform to a colonial epistemology of development that serves to

both speak for Indigenous communities in terms of what sort of development they might seek while also dispossessing many such communities in the process (see also Banerjee, 2011: 325). I especially wish to focus on how, despite their seemingly different starting points, global, regional and national knowledge regimes of environmental justice all have a capital-centred view of development at their heart. Capital-centred development means that capitalist social relations remain the horizon of development and that capital accumulation ultimately remains the main goal of development projects (Lebowitz, 2003; Selwyn, 2017). This view of development does not acknowledge plural ways of being and grants minimal agency to subaltern social groups to shape their own needs. I argue that this reveals the epistemic violence embedded within the current framing of environmental justice as place-making projects. Epistemic violence refers to the process whereby hegemonic knowledge regimes serve to silence and disempower the Other (Castro-Gómez, 2002; Spivak, 1988: 76). Concretely it involves the dominance of Northern epistemologies over those of the Global South, which in turn are disregarded and erased (Bonfill Batalla, 1994; De Sousa Santos, 2016; Lander, 2000; Vázquez, 2011).

The legacy of colonialism and neo-colonial power relations has been well documented in Latin America (Cardoso and Faletto, 1979; Galeano, 2008), and in Mexico specifically (González Casanova, 1969; Knight, 2002) where this study is based. These multi-layered effects have had and continue to have significance for socio-economic development, and the constructions of class, race and gender relations. This includes the negation of Indigenous worldviews within hegemonic conceptions of development, despite various forms of resistance (Bonfill Batalla, 1994; Garzón López, 2013; Radcliffe, 2020; Rivera Cusicanqui, 2012). Contrary to their benign image, I argue that projects of wind park development in Oaxaca are imbricated in and continue colonial power relations. This serves to reproduce historical forms of oppression including those based on inequalities of race and class, integral to the 'coloniality of power' in Latin America that reproduces a Eurocentric hierarchy in terms of valuing knowledge (Cumes, 2018; Durán Matute, 2021: 4; Quijano, 2000). They do so by ignoring the plural ways of being of subaltern subjects and their desire to construct spaces based on their own needs. Explicitly in the context of Oaxaca this means negating the *comunalidad* that forms the basis of collective life for Indigenous communities (Maldonado Alvarado, 2002; Martínez Luna, 2003, 2011).[2]

I argue that environmental justice cannot be arrived at via abstract, universal thinking but, through struggles to negate manifestly unjust situations. It is thus forged in dialectical struggle (Harvey, 1996: 345). Environmental justice therefore requires an awareness of various modes of inequality, whether they be geographical, racial, gendered or class-based. It must also provide for 'cognitive justice' via 'the validation of knowledge born in struggle, of ways of knowing developed by social groups as part of their resistance' (De Sousa Santos, 2016: viii, x). As has been pointed out, environmental justice is increasingly part of the vocabulary of resistance movements (Sikor and Newell, 2014: 151). Holifield et al. (2010: 18) has argued, furthermore, that there is a 'need for environmental justice scholarship to work on its connection to activism and its engagement with those at the sharp end of injustice'. This article seeks to do just that.

My argument is developed in the following stages. The first section provides the key theoretical underpinnings on space, knowledge and power that guide my investigation. The second section explores the CDM in light of this, exposing its inherent colonial epistemology of capital-centred development. This is chosen for its paradigmatic connection to global agendas of climate justice and its positionality to questions of uneven development. The CDM is then contextualised within regional and national developmental projects that I explore in the third section. Finally, I then turn to the specifics of wind parks in Oaxaca

and demonstrate the struggles over place-making and environmental justice that such projects have entailed, before offering a discussion and final conclusions.

Methods and theoretical framing

This article draws from four repeat visits to conduct fieldwork southern Mexico (in 2008, 2009, 2015 and 2017). Over the course of these visits I have conducted over 30 in-depth semi-structured interviews with key informants engaged in struggles for the broader defence of Indigenous territory (of which wind park development is part). Interviewees included members of different Indigenous communities and social organisations as well as activist NGOs involved with the defence of Indigenous territorial and legal rights.

In moving from the global to the local and from present to past, I draw from the extended case method. In doing so, I do not deny that I bring my own theoretical assumptions to the study of key questions. However, these are 'more like prisms than templates and they are emergent rather than fixed' (Burawoy, 1998). In concurrence with Wainwright (2008: 202), I view a key task of fieldwork to *unlearn*. As an academic from the UK I am geographically removed from the lived reality of struggles taking place in Oaxaca. However, I remain inspired by such struggles and committed to reflecting on how hegemonic practices of justice, democracy and development can be challenged to respect diverse practices and learn from them.

After a long neglect in the social sciences, social theory has re-engaged with debates about energy production (Hornborg et al., 2019: 991). The specific theoretical stimulus for this article is drawn from two major clusters of social theory: (1) relational geography on space and nature and (2) the nexus between power, knowledge and development. The work drawn from below is not intended to be an exhaustive review of this literature, but rather an indicative set of framing coordinates.

First, with regards to relational geography, I take inspiration from work that has focused on the production of space, and revealed it to be the realm of contestation and multiplicity that reflects broader social relations and power structures (Lefebvre, 1991; Massey, 1994, 2005; O'Tuathail, 1996). This theorising of space also has important implications for contesting unilinear models of development. As Massey (2011) explains,

> It is about coevalness, the recognition of the contemporaneous co-existence of other things (and a refusal to reorder contemporaneous difference into temporal sequence – backward, developing, primitive, pre-modern, residual – and thus to the past – even when they are 'ruins'). This is about the present. And it matters how we imaginatively reorganise all of this multiplicity of stories into a 'landscape'.

Neil Smith (2008) has furthered this discussion by demonstrating not only how nature is implicated in the production of space, but furthermore, how struggles over nature are intrinsically linked to capitalist social relations of production. Capitalism and nature do not exist in an external relationship, therefore, but rather are *internally* related (Bieler and Morton, 2019: 6–7; Moore, 2015). Finally, in relation to struggles over place-making, Massey (1994: 149) draws our attention to the 'power-geometry' of spatial relations with regards to questions of environmental justice and uneven development. The notion of power-geometry reveals the inequalities of power relations across space in terms of differentiated capacities to instigate ideas, flows or possess mobility. Using Oaxaca as my empirical focus, I seek to draw from these ideas to question the multiple power relations through which 'deeply unjust socio-environmental conditions are produced' (Swyngedouw and

Heynen, 2003: 901). However, Massey (2005: 130) also reminds us, that if space is the result of 'stories so far' then it is imperative to recognise both the 'actually-existing' multiplicity of spaces, as well as the potential for space to be progressively transformed. This is vital for thinking about the possibility of counter-spaces from communities in resistance (Banerjee, 2011; Hesketh, 2017).

The second strand of literature that I draw from is that of the Historical Materialist tradition that explores the nexus between knowledge, power and development. Antonio Gramsci's notion of 'conceptions of the world' is of great service here. According to Gramsci (2007: 352), everyone has a conception of the world they are working with that informs their actions (whether they realise this or not). It is a political strategy to reveal these conceptions, and encourage people to develop conceptions of the world built on 'good sense' (critical reflection) that are not simply imposed on them. As Morton (2007: 114) notes, alternative conceptions of the world thereby offer a path for contesting hegemony. For this reason, Gramsci (1971: 327) argues that 'philosophy cannot be divorced from politics. And one can show furthermore that the choice and criticism of a conception of the world is also a political matter.' Relatedly, Lefebvre (1991: 4–11) made a major distinction between two different forms of knowledge. The first, 'savoir' is a mode of knowledge linked to traditional, spatially-abstracted knowledge, concerned with facts and figures. This is contrasted with knowledge as 'connaissance'. Connaissance is a form of place-based knowledge that is informed by action against power. Finally, Lebowitz (2003) and Selwyn (2017) have contrasted what they call the political economy of capital or capital-centred development with the political economy of the working class or labour-centred development, to question whose needs and priorities are focused upon. I draw from this helpful distinction but prefer the term subaltern-centred development as it is a more inclusive term, capturing the non-proletarianised, or semi-proletarianised nature of many Indigenous community members in resistance to wind park development.[3] I contend that environmental projects framed at the global, regional and national scales, are place-making projects that tend to operate from the point of view of knowledge as 'savoir'. Opposed to this, is the connaissance of Indigenous groups, in the form of subaltern-centred development projects, that I will argue needs to be revalorised when forming notions of environmental justice if the term is to have substance (De Sousa Santos, 2016; Leyva Solano, 2018; Martínez Luna, 2011: 85). Without attention to Indigenous knowledge and their inclusion in the formulation of policy, there is an 'erasure of place' (Escobar, 2001: 140). I will argue that such erasure amounts to 'carbon colonialism' whereby countries of the Global South act as a spatial fix for crises produced by the Global North (Bryant et al., 2015: 2047). With these theoretical coordinates on space and nature, and power, knowledge and development acting as a scaffolding for the major arguments I wish to advance, let us proceed to explore the role of the CDM and its relationship to environmental (in)justice. This section aims to reveal the capital-centred conception of the world that the CDM operates within. I argue that the CDM is framed within a spatially-abstracted mode of knowledge (savoir) that serves to perpetuate epistemic violence towards the Global South (see also De Sousa Santos, 2016).

Clean development as uneven development

Clean development projects (including the CDM itself) have now been subject to various critiques. This has included *inter alia* questioning the promised gains of technology transfer (Lema and Lema, 2013), the reality of delivering sustainable development within the CDM (Sutter and Parreño, 2007), and more broadly the inherent governance issues and the 'politics of knowledge' (stemming from uneven power relations and western, market principles)

that clean development embodies (Boyd, 2009; Boyd and Goodman, 2011; Liverman and Boyd, 2008; Newell and Bumpus, 2012; Newell et al., 2009). I draw from this broader critique of clean development by connecting it to historical–geographical studies of place-making in Oaxaca to reveal the continuities of colonial developmental policy towards Indigenous subjects. As noted in the introduction, this focus on epistemic violence adds another dimension to the existing literature on carbon colonialism.

The CDM emerged from the Kyoto Protocol, signed in 1997 and was further refined by the Marrakesh Accords in 2001. It is the most extensive of all carbon offsetting arrangements. The CDM has two chief purposes. The first of these pertains to developed countries and facilitates the production of carbon credits in the form of Certified Emissions Reductions. The second pertains to less developed countries and aims to promote sustainable development in these nations via investment and technology transfer to help provide carbon offset through avoiding what would otherwise be business as usual (Böhm and Dabhi, 2009b: 9–11; Bryant et al., 2015: 2048; Bumpus, 2012: 13). To this end, the CDM has proven to be the 'largest source of mitigation finance to developing countries to date' (Boyd et al., 2012: 1). The CDM incorporates both 'green' technology designed to reduce carbon dioxide emissions, and the trapping or destruction of greenhouse gas emissions, which includes so-called carbon sinks, established through forest growth (Checker, 2009: 43). In relation to the specificity of wind power projects that I wish to consider later (such as those being rolled out in Oaxaca), a key element of the framing and rationale are in terms of environmental justice, namely to achieve 'sustainable development' for countries of the Global South via technology transfer, while reducing counter-factual carbon dioxide emissions (emissions that would otherwise occur in lieu of this). While critical work has questioned the efficacy of such technology transfer in practice (Sutter and Parreño, 2007), there are two broader theoretical points to note at this juncture. The first of these relates to the way in which our present ecological crisis is being framed in relation to questions of social justice and sustainability, in other words the conception of the world that this crisis operates within. This is important as our ideas about environmental sustainability are inherently political in both origin and their effects, especially when we consider *who benefits* and *who suffers* from proposed arrangements (Harvey, 1996: 148; Swyngedouw and Heynen, 2003: 190). In relation to the modalities in which ecological change is being addressed, this is clearly reliant upon the adoption of market-based mechanisms to address climate concerns, consonant with capitalist property relations (Boyd, 2009: 2391; Bryant, 2019). For example, the premise of carbon offsetting is reliant upon the monetisation of carbon in order to render other commodities equivalent to it (Boyd et al., 2012: 4). This gives carbon dioxide equivalence (CO2e) an objective existence while obscuring the social relations involved in the process of creating that market. As Lohmann (2009: 28) has argued, the market-based approach to carbon reduction, 'abstracts from where, how, when and by whom the cuts are made, disembedding climate solutions from history and technology and re-embedding them in neoclassical economic theory, trade treaties, property law, risk management and so forth'. The current fight against climate change is one in which the logic of the market is not allowed to be challenged, and more specifically the profitability of capital in the Global North (Böhm and Dabhi, 2009b: 9–11; Bryant et al., 2015). As Kingsnorth (2009) powerfully argued, this logic thus prioritises the question of how we power (and perpetuate) our current societal arrangements, rather than asking what types of society should we live in.

The second point to note is that the CDM is inexplicable without recourse to a notion of uneven development (Gutiérrez, 2012: 56). In other words, without geographically inscribed differences in development between those countries assigned as Global North or Global South (or in the language of the United Nations Framework Convention on Climate

Change Annex I and Non-Annex I countries), the project would have no coherence or justification. However, the reality of the CDM serves to produce (or reinforce) patterns of uneven development. For instance, as of 31 January 2019, of the 7804 CDM projects registered, 83% were in Asia and the Pacific (mainly China and India), 12.9% in Latin America and the Caribbean, and just 2.3% in Africa.[4] Moreover, this uneven development also contains an underlying power-geometry through which the CDM operates as it attempts to re-make place. As Bryant et al. (2015: 2051) reveal, 'it builds on the socio-spatial divide between developed and developing countries' and is thus 'dependent on the differentiation of global space into "fixed" internal and external spaces'. Furthermore, low carbon energy projects are predicated upon global differences in land and labour prices (Hornborg et al., 2019). For the countries of the Global South, who maintain rural areas where land values are low and labour-power is cheap, they are first in line for a remaking of their space (Hesketh, 2017; McCarthy, 2015: 2497). There is thus the continuation of colonial practices that 'produce' third world nations as 'nature-exporting societies' (Coronil, 1997: 7). Contrariwise, for the countries of the Global North, technology transfer to the Global South allows other business activities to continue as normal. In other words, clean development facilitates a process of continued 'accumulation by decarbonisation' (Bumpus and Liverman, 2008). Within this power geometry, subaltern groups are largely at the mercy of global flows despite their minimal historical responsibility for rising carbon levels in the earth's atmosphere. Even when consultations are conducted, the structured political settings for this remain hugely unequal (Banerjee, 2018: 810; Torres-Wong, 2019).

My chief argument therefore is that embedded within the very policy proposals of the CDM is an epistemology of development that continues the 'coloniality of power' predicated on a unilinear model of development (Quijano, 2000; Sellwood and Valdivia, 2017: 207). The Global South is thus spatially constituted as an 'outside' in need of development. Development is rendered synonymous with the furtherance of capitalist social relations of production, with the world divided into demarcated spaces progressing unevenly towards a common end (Wainwright, 2008: 7, 17). This continues the colonial lineage in Latin America of devaluing Indigenous knowledge and ways of life in the name of modernisation (Cumes, 2018).

The CDM also incorporates a broader element of specifically capitalist uneven development. As documented by Neil Smith (2008: 6), uneven development within capitalism involves a contradictory dynamic, of 'differentiation but simultaneous equalisation of the level and conditions of production'. On the one hand, space is treated as equal and homogenous when constructing the logic of carbon markets (equalisation). As Corbera and Martin (2015: 2025) explain, carbon reduction 'is packaged in a narrative that naturalises the idea that a tonne of CO_2 can be abstracted from its cultural and ecological context and is thus physically commensurate, ethically equivalent and exchangeable with units elsewhere'. However, in doing so it not only ignores the differing historical responsibilities for producing greenhouse gas emissions, but moreover, elides the differing topographies of social relations that exist across space (differentiation), and the alterative projects for life these may entail. As has been pointed out, the CDM is essentially a means by which governments of the Global North can 'offset' their polluting activities via 'clean' technology transfer to the Global South (Smith, 2009). It is therefore presented as a win–win narrative, and the embodiment of the notion that we should think globally and act locally (Corbera and Martin, 2015: 2025). However, critics have charged that the CDM seeks to hide capitalism under a green rug and 'masks a mechanism for land grabs, local conflicts and pollution', thereby acting as a 'false solution to global warming' (Cabello, 2009: 194). Wind parks have specifically been highlighted as an example of such green-grabbing that serve as a

mechanism for the reproduction of capitalism (Siamanta, 2019). Such an assertion is further borne out by this research in relation to Oaxaca.

I now turn to demonstrating how globally conceived ideas about environmental justice, such as those found within the CDM, have become enmeshed within broader regional and nationally-specific development trajectories.

Wind power and the new extractivism in Latin America

The development of wind parks in Oaxaca must be read in light of a nationally evolving policy, which itself is part and parcel of broader regional trends in Latin American political economy. I refer here to the model of neo-structural development (ECLAC, 2007), or what has more pejoratively been labelled neo-extractivism (Gudynas, 2009). Despite the obvious difference that wind power is a renewable form of energy, the development of wind parks in southern Mexico nevertheless contains strong resonances with the roll-out of neo-extractivism in Latin America which has, in the last decade, emerged as a major developmental paradigm (Veltmeyer, 2012). Neo-extractivism is based on the appropriation and commodification of nature, referred to by ECLAC (2007) as the 're-primerisation' of the economy. Clean energy development forms a part of this panorama with Latin America receiving the largest flow of international investments since 2010 (Furnaro, 2020: 856). The alleged difference between previous and contemporary modes of extractivist forms of development in Latin America is that there is now supposedly a renewed focus on developmental issues. The state thus works in tandem with transnational corporations to use the benefits of the market to provide additional opportunities or to fund social programmes (Burchardt and Dietz, 2014: 469–470). Nevertheless, this rosy narrative has not been without its critics. For example, it has been charged that, in practice, this neo-extractivist development model has transformed the state into an agent of imperialism, creating an alliance with global capital to extract surplus value. Moreover, the mode of alleged development comes with a host of social exclusions, with Indigenous communities largely bearing the brunt of such activities and subsequently fighting back to defend their way of life (Banerjee, 2011; Veltmeyer, 2012).

I argue that, despite their seeming difference, the development of wind parks in Oaxaca is produced within the same logic as neo-extractivist development, which commodifies nature, transforms social relations of production into ones of market dependency and leads to forms of exclusion that tend to exacerbate historically constituted inequalities of class, race and gender (Burchardt and Dietz, 2014: 478). As has been documented elsewhere, this has often been true of CDM projects in Latin America more broadly which have acted as a means to spur agrarian dispossession while primarily benefitting large corporations (Wittman et al., 2015). Prima facie, of course, wind parks would appear to operate under differing logic to that of neo-extractivism. After all, rather than taking a finite, non-renewable material from the ground, wind power is reliant upon the use of a renewable energy source that appears to be intangible. However, this analysis ignores the material basis on which wind turbines and their associated infrastructure must be constructed (including the actual turbines, fences, generators and powerlines). These are forms of fixed capital that intervene directly into the landscape merging 'capital accumulation, socioenvironmental changes and the conditions and experiences of everyday life' (Ekers and Prudham, 2018: 19). Specifically, these come with a concomitant process of enclosure, and territorial dispossession (Dunlap, 2018a: 551; Sellwood and Valdivia, 2017: 205). Howe and Boyer (2016) have thus referred to what is occurring in Oaxaca as 'Aeolian extractivism'.

If this is the regional panorama, then the specific national context of Mexico's changing energy policy is also vital to the story of wind park development. This changing energy policy has been given extra impetus owing to the crisis of *Petróleos Mexicanos* (PEMEX) – the state-owned petroleum company. PEMEX has historically accounted for an important part of state revenue. However, even though Mexico remains one of the largest producers of oil in the world, oil production has declined more than 25% since its peak in 2004 (Alpizar-Castro and Rodríguez-Monroy, 2016: 727). The state has long exercised control over the energy sector in Mexico. However, in 2013 and 2014, major reforms to the Mexican Constitution were approved that opened the energy sector up to more private involvement (Alvarez and Valencia, 2016; Baker, 2016: 374). Alongside these reforms, renewable energy was promoted in the National Strategic Plan for Development. This aimed to (1) raise renewable energy production, (2) do so in a socially-responsible manner and (3) to reduce greenhouse gas emissions (Alemán-Nava et al., 2014: 145). Rhetorically, climate change was prioritised as a public policy priority despite the fact that these reforms included provision for deep-sea ocean drilling to exploit oil reserves (Baker, 2016: 377–378). The Ministry for Energy has clearly seen the promotion of renewables as a key method of securing foreign direct investment and thus cementing Mexico's place within the global political economy, while also enhancing the country's reputation as a promoter of 'green' energy. Wind park promotion is thus part of an 'ecological modernisation paradigm' (Avila, 2018: 600), or what Furnaro (2020) refers to as a 'neoliberal energy transition'.

Once again, the narrative presented (which this article aims to disrupt) is one of a win–win situation (Howe, 2014: 383, 385). For corporations, this is presented as a chance to enhance profits and their green credentials. For the national state, meanwhile, this is seen as a rational development plan, promising Indigenous and poor people both jobs and infrastructure as well as providing a modernising narrative of progress. The 'clean development' strategy within Mexico is also tied to a broader model of 'ecological' capitalism that has been rolled out over the last decade or so in southern Mexico, incorporating the states of Oaxaca, Chiapas, Tabasco and Veracruz (Harvey, 2006: 205). This model is a major state-driven project in collaboration with international capital, involving the 're-engineering of territorial identity and extent, as well as the location, lives and livelihoods of Indigenous and campesino communities' (Rocheleau, 2015: 705). This ecological capitalism is a contradictory matrix of policies involving protection of biodiversity, extraction of natural resources, promotion of monocultures and eco-tourism (which also comes with major infrastructural projects). Moreover, it is a model that speaks on behalf of Indigenous people, continuing the long lineage of rural social control over Indigenous people and governing them in the name of 'development', often leading to agrarian dispossession or what has become known as 'green grabbing', whereby formerly collective land-rights become privatised and transferred to corporate entities (Dunlap, 2018b: 632; Wittman et al., 2015). For state-planners, this area constitutes 'a region without people, without a history, but supposedly a future' (Harvey, 2006: 211). 'Green rhetoric' is invoked both as a means of legitimating developmental projects and as a means of discursively countering grievances that arise (Dunlap, 2019: 20). This is a place-making project that fundamentally seeks the wholesale restructuring of the broader political economy of the region. To cite Marx (1977: 789), 'the capitalist mode of production's seizure of agriculture, the transformation of the independently operating peasantry into wage-labourer, is in fact the final conquest of this mode of production'.

In the context of Oaxaca, this manifests itself as a set of clashing conceptions about the world, revealed through struggles to remake space (see also Hesketh, 2013). In order to make this argument, I now turn to a brief history of struggles over place-making in Oaxaca (including Juchitan's place within this state). This will help to illuminate some of the

above-mentioned historical modes of inequality that exist and situate the empirical subject matter of the article. This section is also essential for demonstrating both the material reality of place and how the region has been constructed as an object for intervention by the national state (see also Sze et al., 2010). Over the last decade, Oaxaca has been at the forefront of resistance to neoliberalism in Mexico. The formation of the *Asamblea Popular de los Pueblos de Oaxaca* (APPO, Popular Assembly of the Peoples of Oaxaca) in 2006 was the most potent symbol of this (Hesketh, 2017: 128–132; Stephen, 2013).[5] In the years since the so-called Oaxaca Commune of 2006, activism and resistance has mainly coalesced around opposition to mining and energy projects, including wind park development, mainly by Indigenous communities.

Environmental justice and place-making in Oaxaca

Wainwright (2008: 5) has argued that to decolonise development we cannot simply assume the fixed ontological status of places, rather we must explore how they were produced. An understanding of historical and contemporary modes of exploitation in the region is vital to both rethinking what appears to be a clean form of energy-development and a starting point for considering an alternative conception of environmental justice. Historical exploitation should thus be studied to show how it continues into the present (Marx, 1974: 533). I therefore want to explore the way in which environmental projects for remaking place, conceived at the global, regional and national scales, fail to address and indeed often perpetuate historical forms of inequalities in places such as Oaxaca through their dominant conceptualisation of the world that limits notions of environmental justice to one that is wedded to the expansion of market-based relations (or capital-centred development). Furthermore, understanding the history of place, allows us to reflect on how Indigenous communities – subject to neo-colonial developmental policies – might possesses capacities to resist them (Banerjee, 2011). This highlights the need to 'reformulate environmental politics on the terrain of the quotidian' (Loftus, 2012: xvii). Let us begin then with a brief overview of Oaxaca.

   Demographically, Oaxaca is one of Mexico's most Indigenous state with 16 separate Indigenous groups. According to the *Programa de las Naciones Unidad para el Desarrollo* (2009: 6), Oaxaca ranks 31st out of Mexico's 32 federal entities on its Human Development Index. More than 60% of the population live in poverty, with more than 23% defined as living in a situation of extreme poverty. Although colonialism had a major impact on the reorganisation of space (see Hesketh, 2017: 106–112), Oaxaca has maintained a unique property regime. In the present day, 75% of land is communally held, either in the form of *ejidos* or *tierras communales*[6] (Instituto Nacional de Estadística y Geografía, 2014). Alongside this property regime, there are accompanying political structures, notably communal assemblies and collective traditions of community work (*tequios*), which are defined as a social obligation. As Aldo Gonzalez (personal interview, 2017) from the *Unión de Organizaciones de la Sierra Juárez* (UNOSJO, Union of Organizations of the Sierra Juárez of Oaxaca),[7] states, 'these characteristics that are typical of the Indigenous communities are those that permitted their survival throughout colonialism and are a living expression that also has enabled them to survive neoliberal globalisation'. They are referred to as the basis of Oaxaca's *comunalidad* (Maldonado Alvarado, 2002; Martínez Luna, 2003, 2011). As has been documented elsewhere, what we can observe in Oaxaca, at least in part, is the survival of major elements of non-capitalism, or non-capitalistic social relations. These continue to inform present-day struggles (Hesketh, 2016). The community assembly has been an important means for providing a collective form of political power, invoked to

challenge, and sometimes successfully block, capitalist expansion (Hesketh, 2013). This has been vital, as the Mexican state has been determined to valorise Indigenous territory, whether through outright privatisation or via territorial concessions for exploration (and often exploitation) of mineral resources. As Torres Contreras (2020) has documented, the major locus of territorially-based resistance to wind park expansion in the Isthmus comes precisely from those areas where communal claims to property still exist such as Juchitán.

Juchitán is a largely Zapotec municipality within the Isthmus of Tehuantepec. Demographically, the Isthmus region is heavily Indigenous, and made up mainly of Zapotec and Hauve groups (but is home to five distinct ethnic groups as well as a mestizo population). The Isthmus is considered a prime strategic location by the national state. It has historically been viewed as a site for a possible alternative to the Panama Canal, and in contemporary times has been a major target for the roll-out of neoliberalising projects of the Mexican state, encapsulated in the Plan Puebla-Panama/Proyecto Mesoamerica. Salina Cruz, a city on the Pacific coast, was, in recent years, named as a Special Economic Zone (SEZ) in a bid to accelerate foreign investment in the area. Salina Cruz was linked to the coastal city of Coatzacoalcos in Veracruz next to the Gulf of Mexico (also named as a SEZ). Together, the two cities are designed to form the Isthmus-Corridor. The prime strategic location of the Isthmus is related to its major geographical endowments, as a site of wind-power, petro-chemicals and hydro-electric power. This should remind us that nature – far from being a pristine element that stands outside of human activity – is in fact *produced* within our dominant mode of production (Moore, 2015; Smith, 2008). Under capitalism this involves the direct appropriation of nature for profit. Furthermore, it is precisely the existence of non-capitalistic space that makes it attractive to incorporate and remake, owing to the low land value and labour costs. Critics, who work closely with Indigenous groups have noted that the contemporary model of development being rolled out in the Isthmus has been based around a violent imposition (Gonzalez, 2017, personal interview). This conforms to a wider pattern of authoritarian neoliberalism that has been established in Oaxaca over the last two decades (Jenss, 2019). This broader panorama needs to be remembered when we consider the issue of wind park development as the latter is part and parcel of a broader set of territorial reconfigurations and place-making that is promoted by the national state to transform Oaxaca into a space for capital accumulation (Hesketh, 2017: 109–134). While Marx (1977: 885–891, 909) was highly attentive to the role of space for the expansion of capitalist social relations, he largely focused on the regressive role of landed property in blocking this expansion. Little was said about the progressive possibilities of collective property in blocking such an expansion (Hesketh, 2016). This is what I wish to consider. For while the Isthmus is currently viewed as a site for investment and capitalist expansion, such spatial transformation of the lived environment has a long history of opposition and resistance (reminding us of the 'stories so far' that have been involved in its place-making). For example, John Tutino (1993: 42) has described Juchitán as a 'centre of adamant resistance to state power'. Historically, Juchitán was the location of the first major challenge to the 71-year rule of the *Partido Revolucionario Institucional* (PRI, Institutional Revolutionary Party) by a radical, leftist, Indigenous group known as the *Coalición Obrera Campesina Estudantil del Istmo* (COCEI, Worker-Peasant- Student Coalition of the Isthmus), which was founded in 1973. The COCEI emerged as a political response to the changing class relations in the Isthmus. In particular, the movement was a reaction to transformations in space, specifically, the capitalisation of peasant agriculture. This was linked to major state developmental projects to increase productivity and was tied to continued *cacique* (local political boss) rule. This is important to document, as it is revealing of key elements of both continuity and change. On the one hand, we can see the consistent manner in which the

Isthmus (and in fact, the region of Oaxaca and southern Mexico in general) has been treated as a 'spatial target' for investment and development projects, designed to spur the accumulation of capital (Brenner, 1997: 280). This follows a long rationale of seeking to forcibly produce space and 'develop' the south of Mexico in a fashion similar to that of the North (Dávila et al., 2002). Recalling Massey (2005), we can see space as the realm of contestation and multiplicity. For our purposes, this revolves primarily around conflicting notions of development among differently situated social forces (those with a capital-centred development and contrariwise a subaltern-centred view of development).[8] The COCEI was also important as a precursor for many of the contemporary claims taking place today, namely in the demands for Indigenous autonomy, the defence of territory and cultural recognition (Renique, 2007; Stephen, 2013: 55). However, we should note that the COCEI eventually became incorporated into the structures of power. Indeed, the Mexican state provided funding and recognition in return for the group toning down its militancy (including land invasions). The COCEI went from radical opposition to governing alongside their former foes the PRI from 1989 (see Hesketh, 2017: 117). This has, in turn, affected how some communities in the Isthmus are choosing to engage with resistance to wind parks in the contemporary period.

Wind parks and environmental injustice

Today, Juchitán is a major site of wind power investment led by multinational corporations including Acciona Energy, Iberdrola, Mitsubishi, Gas Natural Fenosa and EDF Energies Nouvelles. Oaxaca as a whole has 90% of the developed wind energy capacity in Mexico (Baker, 2016: 381). $1.2 billion was invested into the wind sector in Oaxaca over a two-year period (Howe, 2014: 386). The planned wind park development projects would make Oaxaca home to the largest concentration of wind turbines anywhere in the world. The majority of existing wind parks in the region are registered as CDM projects (Sellwood and Valdivia, 2017: 210–211). In terms of wind power generation, the Isthmus has been scientifically measured as one of the best locations on earth for generating wind power (Elliot et al., 2003). The development of wind parks thus tries to capture what neo-classical economists would see as natural factor endowments of the region by 'making markets out of thin air' (Gutiérrez, 2012). From a Historical Materialist perspective, however, this must include analysis of nature's *appropriation* by capital. As Marx (1977: 745) stated in relation to this point, 'Natural elements entering as agents into production, and which cost nothing, no matter what role they play in production, do not enter as components of capital, but as a free gift of Nature to capital'. On this point, it is worth noting that global carbon markets, in which this struggle is imbricated, were previously trading at over $100 billion per year (Lohmann, 2009: 26). While carbon markets fluctuated in the wake of the 2008 financial crisis, as demand was suppressed for carbon credits (Boyd et al., 2012: 1), the *Daily Telegraph* newspaper recently described carbon as 'the best performing commodity in the world', with prices rebounding (Evans-Pritchard, 2018). Whatever the current market price, however, the salient point remains in terms of the project that wind parks imply: carbon is to be valorised, Indigenous life is not.

By contrast, through their strengthening of community assemblies, and their broader internal organisations of collective decision making, notably as it pertains to territory, Indigenous groups are constituting a model that is distinct from that of capitalist development (Gonzalez personal interview, 2017). As noted in the introduction, in Oaxaca this is grounded in distinct notions of *comunalidad*. As Ana María García Arreola (personal interview, 2015) from EDUCA[9] states, in Oaxaca there are 'two projects of life in conflict.

The project of capital and the project of Indigenous life.' Wind parks, despite their claims to environmental justice, are clearly part of the project of capital-centred development. In order to realise their own needs, Indigenous communities, rooted in place-based forms of knowledge (connaissance) are attempting to construct an alternative, subaltern-centred form of environmental justice, grounded in ensuring their own socio-territorial control. Concurrent with Aparicio and Blaser (2018), such struggles for autonomy can be seen as an 'insurrection of subjugated knowledge', that can demonstrate the possibility of a different mode of politics outside of western modernity.

Despite the fact that equity is a core component of environmental justice (Scholsberg, 2013), wind parks in Oaxaca have not improved this situation. Electrical generation from wind parks in Oaxaca is enough to power over one million homes, yet local people are not the beneficiaries, rather the electricity is purchased by transnational corporations such as Wal-Mart, Grupo Bimbo, Coca Cola and CEMEX, from a parastatal company (Dunlap, 2018a: 569; Howe, 2014: 388; Sellwood and Valdavia, 2017: 211). Oaxaca, meanwhile, has the second lowest rate of electrification in the country (Baker, 2016: 382). This problematic resource distribution is not unique to the case of wind parks in Oaxaca: a similar story has been found regarding most CDM projects within Latin America. A chief conclusion is that these projects have facilitated land grabbing and the speeding up of Latin American agriculture's integration into global markets, built on the dispossession of local communities (Wittman et al., 2015). As Newell and Bumpus (2012: 58) have illustrated, much like with earlier environmental concerns about polluting industries, we find a mirrored situation in which these CDM projects are set up in communities where people are poorer and land is cheap. Cheap nature after all is essential to the continued accumulation of capital (Moore, 2015: 193).

This logic is also operative on the basis that resistance will be harder to articulate and sustain. However, resistance has indeed arisen in places such as Juchitán (and in other parts of the Isthmus). This was sparked from the lack of consultation in the first instance. This was recounted to me during an interview with one of the leaders of the APPJ, Carlos Sanchéz Martínez (2015, personal interview). Reflecting on the groups origins in 2006 to oppose wind parks and mega projects within the region he stated, 'we are not against technology, we are against foreigners with money, foreign companies trying to do things with our territory without asking us'. This also entailed his reflection on the reckless abandon of those with power and the despoliation of the land. The notion of clean energy is thereby refuted and questions are raised about the inequality of power to shape environmental transformation: 'Mother earth is ill. Some of the problems are caused by us, but most of it is caused by companies with money who think they can own everything.' Finally, this was expressed in implicit class-based terms, with the poor of the Global South juxtaposed to the wealthy of the Global North: 'we are being asked to sacrifice ourselves for *their* pollution. It is a dispossession. We need to hold the wealthy accountable and we need to defend ourselves.'

The APPJ members I spoke with fiercely opposed the idea of carbon trading which they saw simply as the right to pollute. These grievances surrounding a lack of consultation, adverse local outcomes for agrarian livelihoods, and the unequal bearing of responsibility for climate change mitigation, chimes with wider scholarly articles that have investigated the region (Avila-Calero, 2017; Dunlap, 2018a; Howe, 2014). Again, in commonality with other parts of Latin America, the protests of the APPJ have been met with major efforts by the state and capital to silence them, often through violent tactics (see also Dunlap, 2018b). In their struggle against wind parks, the APPJ are explicitly trying to learn the lessons of the past, especially regarding the problematic incorporation into state structures that has

befallen past movements such as the COCEI (discussed earlier). Another one of the leaders of the APPJ, Raymundo Regalado Jiménez (2015, personal interview) recounted to me that the line of the APPJ has been 'no to politicians, no to political parties…we have honoured these commitments in light of what power has done to other movements'. The tactics of their resistance has involved the reinvigoration of culture and the use of place-based knowledge to attempt to revive their socio-territorial control. One of the major means of doing this has been via information disseminated from the radio station 'Radio Totopo'. Totopos are local corn-based food, that is a staple among all different ethnic groups in the Isthmus. It thus serves as a symbol of unity amid diversity. This is demonstrative of how subaltern-centred environmental justice is both emergent (in that it is linked to processes of struggle) and tied to place-based knowledge. The radio station aims to provide information about wind parks as well as strengthening local culture as a means for fortifying resistance. As was articulated by a member of the APPJ, the radio is 'a defence of culture, territory and customs but more than anything it is a defence and regeneration of Zapotec culture' (Regalado Jiménez, 2015, personal interview). It should be noted that they do not provide a ready-made, purposive counter-project for environmental justice themselves. Rather, as subaltern actors, their project begins with an everyday effort to re-build a social fabric with a collective character that aims first to negate an unjust environmental situation (see also Loftus, 2012). As Avila (2018: 613) clarifies, when thinking about environmental justice, local modes of opposition should be seen not as 'regressive forces blocking the possibility of an energy transition', but rather as 'political instances that enable a wider discussion to occur on the ways such transition should take place'.

Struggles against wind parks in places such as Juchitán demonstrate strong resonances with other social struggles throughout Oaxaca, most notably mining conflicts. The wind parks are similarly based on large tracts of land being provided in the form of state-based concessions, often with minimal consultation or downright mis-information about the benefits that such wind parks will bring. Evidence of mis-information and a poor level of consultation with communities abounds. For example, the Inter-American Development Bank conceded that community rights were being violated in relation to the Mareña Renovables wind project when a case was bought by the Indian Law Resource Center (Márquez-Mees, 2012). However, following an appeal and subsequent (disputed) process of consultation, the project – renamed Energía Eólica del Sur – was allowed to proceed, becoming the 28th wind farm in Oaxaca state.

Within the regional panorama of social conflicts, place-specificity has been incredibly important to the differentiated outcomes. While Oaxaca has, as a whole, retained important Indigenous forms of territorial control, Juchitán as an urban area has lost some of these. Thus, as Aldo Gonzalez (2017, personal interview) recounts, from 1975 there has not been a *Comisariado de Bienes Communales* (Commission of Communal Property) in Juchitán. Instead a regime of small-property holding has been built up. The role of the *Comisariado* is recognised by federal and agrarian law in Mexico, and is vital for ensuring the wishes of the community assembly are carried out. It also provides a means for engaging with outside actors.[10] The lack of such strong traditions has aided the installation of the wind parks that have at times, passed over the top of affected communities. As Torres-Wong (2019) has convincingly demonstrated, having representative political structures within communities is one of the single most important factors in being able to resist extractive forms of development.

In addition to the lack of consultation, the reality, according to members of the APPJ, has often involved meagre lease payments for land rental, a lack of forthcoming jobs and infrastructure, blocked access to previously held communal land and ancient religious sites

and affected flora and fauna. This includes fishing stocks which is vital to the way of life in many agrarian communities in the area. Finally, the mode of implementation has involved a continuation of historical forms of coloniality, linked to *caciquism* (boss rule) and corruption (see also, Dunlap, 2019).

Discussion: The scale of environmental justice

Struggles over competing conceptualisations of environmental justice struggles are clearly imbricated in a variety of spatial scales. At first glance, it would appear that the struggle of the APPJ is a locally-informed, place-based environmental struggle against a much broader global formulation of justice. However, closer inspection reveals this not to be quite accurate. First, as I have documented, the globally-conceived CDM, as it plays out in Oaxaca is itself enmeshed into regional, national and sub-national development paradigms, all of which seek to expand what is broadly a capital-centred form of development. Moreover, Indigenous struggles for land and territory are not confined to Oaxaca in their articulation, but are waged through a variety of scales. For example, at the global scale, International Labor Organisation Code 169 is appealed to, not only by the APPJ but by numerous Indigenous communities and civil society organisations that accompany them in Oaxaca, who are also resisting state-based concessions of their territory. This code gives legal recognition to the rights of Indigenous peoples to be consulted with regards to their territory via free, prior and informed consent (FPIC). However, while rhetorically powerful, it is far from clear this is a panacea to resolve this problem. The reality of FPIC processes has often been to increase intra-communal divisions, with inducements for some community members to support projects. Furthermore, in the Mexican case, the *Secretaría de Energía* – the organisation that has authorised the energy based project in the countryside – is also responsible for organising the consultation process (Dunlap, 2019: 127–144; Torres-Wong, 2019: 40–65). The 'unequal sovereignty' that frames discussions over resources must always therefore be borne in mind (Banerjee, 2018: 30).

The national scale also remains a terrain of struggle. For instance, the protection and respect for Indigenous rights is enshrined in the Mexican constitution. However, this comes into conflict with the 'rights' of the Mexican state to administer to the subsoil and air on behalf of the Mexican nation. Once again, an appeal to the broader 'good' is used to justify the dispossession of a minority. To this end, Radio Totopo is aligned with the National Indigenous Congress. The APPJ is also a signatory to the Zapatistas 'Sixth Declaration of the Lacandon Jungle', which seeks to construct a non-institutional left-based struggle throughout Mexico. The local scale is clearly where groups such as the APPJ can gain the most immediate traction. This is where such struggles are nourished both from the locally-specific history of community defence and from the inspiration of similarly affected peoples that are struggling in the contemporary period. As Gabriela Linares (personal interview, 2017) from ONOSJO states, 'the subject of territory has become the axis that moves this articulation' of various Indigenous movements coming together. The place-specificity, or what Harvey (1996) refers to as 'militant particularism' of such claims, does however have the potential to limit the wider purchase that movements can have in building broader coalitions that challenge the structural power of capital (as was the case with the APPO in 2006). It is essential, therefore, that place-specific conflicts continue to actively wage their struggle through a multiplicity of scales, creating networks that are capable of common articulation despite their locally-rooted struggles (Durán Mutate, 2018: 45). This would allow them to remain place-based yet not place-bound. This, however, presents complex problems of historical identity formation linked to unequal power relations common to

subaltern groups both in Mexico and Latin America more broadly. The simplistic idea of forging a 'national-popular' movement is complicated when the 'national' scale is not a territorial reference that Indigenous groups all identify primarily with. Indeed, rather than the 'national-popular, the notion of the 'community-popular' instead has gained traction in Latin America in the last decade (see Guiérrez Aguilar, 2014). This does not render the task of building wider movements impossible, but any such movement would need to tread carefully around questions of intersectional identity formation. As Gramsci (1992: 128–129) has put it, the task should be to find 'the real identity underneath the apparent differentiation and contradiction and finding the substantial diversity underneath the apparent identity'. To this end, a number of 'organic intellectuals' are working with social movement-oriented organisations across Oaxaca that provide links across social struggles against extractivist development and territorial dispossession. This includes articulation at the local state scale (such as C*olectivo Oaxaqueño en Defensa de los Territorios*, Oaxacan Collective in Defence of Territory), and at the national scale (such as *Asamblea Nacional de Afectados Ambientales*, National Assembly of the Environmentally Affected and *Red Mexicana de Afectados por la Minería y En Defensa de los Ríos*, Mexican Network of People Affected by Mining and in Defence of Rivers) and at the transnational scale (such as *M4: Movimiento Mesoamericano contra el Modelo extractive Minero* Mesoamerican Movement against the mining extractive model). Neftalí Reyes (2017, personal interview), a coordinator in the area of Territorial Rights with Oaxacan NGO EDUCA, describes the role of the organisations such as his as, 'providing a kind of bridge' in order for people and groups to make informed decisions. They also facilitate 'the exchange of experiences. We promote that from various spaces, from diverse views about territory, about the strategies that are able to build various actions, and we generate methodologies for intercultural dialogue.' He admits that current struggles are still highly localised and that, despite some efforts to strengthen these at the national scale, this has not proven to be especially strong as of yet, nor translated into a proposal for changing the legislative level or that of public policy. It is of course worth heeding Arturo Escobar's (2001: 157) conclusion that

> "place" and "local knowledge" are no panaceas that will solve the world's problems. Local knowledge is not pure or free of domination: places might have their own forms of oppression and even terror; they are historical and connected to the wider world through relations of power.

Nevertheless, it must be remembered that resistance and counter-proposals for environmental justice are a process involving subaltern groups, who by definition exists in unfavourable positionality to wider structures of power. The priority, in the first instance, for those that work within the area of Indigenous rights within Oaxaca thus remains on strengthening the internal structures of the community with regards to questions of territorial control (Gonzalez, personal interview, 2017). If this strengthening can indeed occur, enhanced opportunities could exist for thinking about how the political structures of communal land tenure regimes could have major advantages for thinking about community-based energy development (Baker, 2016: 387). Beyond this, a conceptual of environmental justice could emerge built on trans-local spaces that move beyond the confines of the statist paradigm and towards a post-colonial sovereignty (Banerjee, 2011; Magnusson, 1996: 93).

Conclusion

Since the 2008 financial crisis, old shibboleths about political economy have come under increasingly strain, including of course the hegemonic 'common sense' of neoliberalism.

If a spectre is haunting the world, however, it is, more than anything else, the spectre of climate change. Climate change is evidence that the world is changing at a rapid pace, yet the urgency of action and the political will to confront this problem has still not fully dawned on most people nor resulted in sustained and meaningful deeds in terms of an alternative political economy. Climate change presents an existential threat to the survival of the human species (along with many others). A solution urgently needs to be found that does not literally cost us the earth. The development of renewable, low-carbon energy as embodied by wind power is surely among the strategies that will need to be employed to prevent the world from intensified climate change. However, in the effort to create sustainable development and environmental justice, there are both spatial and temporal issues that require urgent reflection. This involves exploring *where* historical responsibility for carbon emissions lie and examining *whose* life must change to make the painful accommodations that might be necessary. As this article has shown, at present, hegemonic conceptions of environmental justice are serving to reinforce colonial relations of power and dominance, with a failure to address capitalist expansion as part of the problem. It is also making the everyday, lived environments of certain subaltern groups manifestly more unjust and precarious in the name of modernisation. Any just and sustainable solution cannot be based on dispossession of the poor at the expanse of advancing corporate power as is currently occurring in southern Mexico. Rather, the situated environments of subaltern groups and their right to self-determination must also be addressed if environmental justice is to have meaning. How competing demands for environmental justice at the local scale are to be resolved within a broader global framework is a complex issue, but in the case of Juchitán, it seems clear that the answers are not 'blowing in the wind'.

Highlights

1. I explore the notion of environmental justice and its relationship to questions of sustainable development via an investigation into the political economy of wind park development in Oaxaca, southern Mexico.
2. The article respond to a recent call for more empirically-grounded research on carbon offsetting, while putting such place-specific empirical work into broader debates about the meaning of environmental justice.
3. I argue that global environmental justice continues to be framed within the political economy of capital, or 'capital-centred development'.
4. This continues a colonial epistemology of development that reinforces historical inequalities of race and class in Oaxaca.
5. I consider the potential for an alternative, subaltern-centred view of environmental justice rooted in indigenous knowledge and practices.

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Notes

1. The result has been that wind power has the highest approval rating of any form of electricity generation (Graham et al., 2009: 3349).
2. As these authors make clear, *comunalidad* refers to an epistemological perspective and lived practice grounded in communal life (and obligations). It includes notions of territory, governance, labour and enjoyment (in the form of fiestas). It is thus opposed to individualism that has sustained Indigenous resistance to colonialism.
3. On the expansive meaning captured by the term 'subaltern', see Green (2011).
4. For details of all registered CDM projects see – http://cdm.unfccc.int/Statistics/Public/CDMinsights/index.html
5. During a three-month period, a variety of trade unions, social movements and civil society organisations came together and took over the running of the city as they tried to force the ouster of Govenor Ulises Ruiz Ortiz following his repression of the Teacher's Union (Section 22).
6. Ejidos are state-owned collective property over which community members have usufruct rights whereas tierras communales are Indigenous territories recognised from colonial times onwards.
7. UNOSJO is a grouping of Indigenous organisations from the Sierra Juárez region of Oaxaca dedicated to Indigenous Rights.
8. Lebowitz (2003) and Selwyn (2017) contrast the political economy of capital/capital-centred development with the political economy of the working class/labour-centred development, respectively. I draw from this helpful distinction but prefer term subaltern-centred development as it is more inclusive, capturing the non-proletarianised, or semi-proletarianised nature of many Indigenous community members.
9. EDUCA is an NGO with 20 years' experience of working with social movements in the region. It is dedicated to democracy and development among marginalised sectors of the population in Oaxaca, especially focused on Indigenous regions.
10. See, for example the *Secretariá de Desarollo Agrario, Territorial y Urbano* (Secretariat of Agricultural, Territorial and Urban Development) http://www.pa.gob.mx/Serviciosweb/Servicioajor/cuestionario.asp?cve_pregunta = 5&desc_pregunta = FACULTADES

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