

**INTERRUPTING 'GREEN CAPITAL': TRANSFORMATIVE POLITICAL PRACTICE AT THE
FRONTIERS OF WIND ENERGY IN MEXICO**

Scott A. Sellwood

A thesis submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of
the requirements for degree of Master of Arts in the Department of Geography

Chapel Hill
2014

Approved by:

Gabriela Valdiva

Elizabeth Havice

Altha Cravey

© 2014
Scott A. Sellwood
ALL RIGHTS RESERVED

ABSTRACT

Scott. A. Sellwood: Interrupting 'green capital': transformative political practice at the frontiers of wind energy in Mexico
(Under the direction of Gabriela Valdivia)

This thesis examines how contestations over the large-scale production of wind energy are transforming political life in the Isthmus of Tehuantepec, Mexico. In the 1980s, the Mexican state and international actors targeted the Isthmus as a place for investing in green energy development. Today, wind farms occupy between 10,000 and 15,000 hectares, but could extend to between 40,000 and 50,000 hectares if the 'full' wind energy potential of the Isthmus is developed. Indigenous social movements are interrupting this 'greening' of the Isthmus, however, sustaining that the expansion of green energy, despite its associations with the greater ecological good, is detrimental to their survival. *How is the harnessing of wind in the Isthmus becoming a new frontier of green capitalism? And how are indigenous movements reshaping the practices of green energy in Mexico?* I examine these questions through the case study of indigenous-led resistance to the construction of a large-scale wind energy project in the southern Isthmus: the San Dionisio project along the Barra de Santa Teresa. As the Mexican government pursues green energy, the Isthmus is re-signified as an environmentally responsible space of liberal peace. Drawing on participant observation, interviews with NGOs and local residents, and analysis of environmental and energy policy documents, I argue that this is a "virtual peace", one that makes invisible the character, agency, and needs of civil society actors. By framing resistance to wind farming as the cause of conflicts to be managed for the greater common good, state-sanctioned 'pacification' of the Isthmus entrenches short-term direct violence and structural violence as constitutive of green capitalism.

To Em, for your support, always

ACKNOWLEDGEMENTS

I would like to begin by acknowledging the Occaneechi Band of the Saponi Nation who are the traditional custodians of the land which the University of North Carolina at Chapel Hill occupies today, and to pay respect to their Elders both past and present. I extend that respect to other first nations people past and present.

In Australia, acknowledging the traditional custodians is an important political practice that recognizes the long histories (and continuities) of marginalization and exclusion of indigenous peoples that continue to shape relations in the present. This is the case not only in Australia, but here in the US, in Mexico (as it is in too many other parts of the world).

I want to extend a special thanks to Gaby, Elizabeth and Altha for their endless support and guidance. Gaby in particular gleaned quickly that I have a tendency to keep reading, and reading, and reading. Her guidance helped me frame my research questions and limit its scope.

Aron, Eloisa, Amy, Willie and Jim, your insights during our many conversations at Linda's and Med Deli, in our seminars, are reflected here. Coming from Australia, it has been a pleasure to be part of a group of remarkable geography graduates. Thank you.

My studies here at UNC would not have been possible without the support of the Rotary World Peace Fellowship provided by the Rotary Foundation. This Fellowship has allowed me to work with an incredible group of peacebuilders from all over the world. I want to acknowledge Negaya and Natasha in particular. They have supported me in ways that cannot be captured in words, during some tough times.

The financial support of the Peace Fellowship made my first phase of fieldwork possible: a three-month research position with an NGO in Mexico City. It was during this time that I was introduced to the people, places and things that are the actors in this thesis. I am indebted to my Mexican colleagues and friends for their remarkable hospitality. I want to extend an extra special thanks to Luis Gómez-Chow for his friendship.

My thanks must also go to the Department of Geography for the Seed Research grant I was offered in October last year. This grant made it possible to return to Mexico for three weeks in January this year.

The interviews I conducted during this short time period were incredibly rich and provocative, and have played a vital part in the analysis. All of these participants expressed strong interest in reading and commenting on my findings. I look forward to sharing this analysis with them. I hope I have reflected their intense commitments to social and environmental justice in Mexico, and their visions that other worlds are possible.

Last, but by no means least, I want to acknowledge my family in Australia. I've missed you.

TABLE OF CONTENTS

TABLE OF FIGURES.....	ix
CHAPTER 1: INTRODUCTION	1
1.1 Green energy through a critical peace theoretical framework.....	5
1.2 Research questions and objectives	8
1.3 Methods	10
1.4 Organization of the thesis	14
CHAPTER 2: CONTESTING THE VALUE OF WIND.....	17
2.1 Frontiers of wind power.....	17
2.2 Global ecologies of green energy capital	20
2.3 Violence of ‘green’ commodification and enclosure	21
2.4 Creative destruction of non-capitalist value	25
2.5 ‘Green’ energy frontier as a form of ‘virtual’ peace	27
CHAPTER 3: ‘VIRTUAL PEACE’ AT THE FRONTIERS OF ‘GREEN’ CAPITAL.....	31
3.1 The post-politics of climate change and green energy.....	33
3.2 Mexico’s harmless ‘farming’ of limitless wind.....	35
CHAPTER 4: A CAPITALIST WIND ENERGY LANDSCAPE	40
4.1 A new extractive frontier.....	41
4.2 “One of the world’s best wind resources”	42
4.3 Making wind legible and governable	46

4.4 It's waste that makes capitalist value possible	51
CHAPTER 5: INTERRUPTING 'GREEN ENERGY' IN SOUTHERN MEXICO	54
5.1 Sedimented histories of indigenous political struggles.....	56
5.2 Shifting spatial-political practices of contestation	62
5.3 Radical politics in Álvaro Obregón	65
CHAPTER 6: MAKING SPACE FOR PEACE.....	69
APPENDIX 1: WIND FARMING IN THE ISTHMUS OF TEHUANTEPEC (1994 – 2013)	76
APPENDIX 2: INTERVIEW QUESTIONNAIRE	77
REFERENCES	79

TABLE OF FIGURES

Figure 1: Location of the San Dionisio Project (IADB, 2011)	2
Figure 2: Waste as Energy (HSBC, 2013)	31
Figure 3: State-based Electricity consumption 2011 (by author)	37
Figure 4: Wind Resources Tehuantepec, Oaxaca (by author).....	43
Figure 5: Staking claims to the Isthmus' wind (Oceransky, 2010, p. 514)	45
Figure 6: Indigenous peoples' territories, Isthmus of Tehuantepec (Boege, 2008, p. 79).....	46
Figure 7: Tierra y Libertad (Anon.), Casa de las Culturas, Juchitán (Photo by author)	54
Figure 8: Locating the San Dioniso Project (IADB, 2011).....	65

CHAPTER 1: INTRODUCTION

We sit in the ruins of an old hacienda in Álvaro Obregón, in the municipality of Juchitán, Oaxaca, in the southern Isthmus of Tehuantepec. We sit where we can: on old palm stumps in the shade. The July sun was intense, even for an Australian born in subtropical Queensland. Local fishermen and farmers, some young, others not so young, share their views on life at the Isthmus. It had been a hard year. Harvest had been poor. Last year the fishing had been excellent. This year they wait. Maria and I are visiting Álvaro Obregón to speak with these farmers and fishermen about why they are opposing the expansion of wind farming in this region. Maria works for a human rights advocacy NGO in Mexico City. We were in Juchitán to attend a conference, organized by local indigenous activists, on the history of local struggles against wind farming in the Isthmus. We asked to visit Álvaro Obregón because here women, men and children are blocking the only access road to the Barra de Santa Teresa, a thin strip of sand and mangroves that separates the Mar Superior from the Mar Inferior, on the Pacific coast of the Isthmus (see Figure 1 below). They are blocking construction of a large-scale wind-farm, the San Dionisio project. If built, it would be the largest wind farm in Latin America. Their fears about future harvests, about their survival, are exacerbated by the possibility that if the wind farm is built, they won't be able to fish from the Barra or tend the *milpa* (harvest their corn). If built, the Barra and the surrounding lands will be fenced off. They say they are afraid they will have to move to the city to find work, to the city where, for most, there is hunger. They are one of seven communities protesting this project¹.

Six months later, on 26 January 2014, foreign investors announced they would not proceed with the San Dionisio project in the Barra (Rojas, 2014). The announcement to relocate the project (to a still unknown location in the Isthmus) came more than one-year after these farmers put their bodies on the

¹ On 26 December 2012, 225 individuals from the communities of Santa María Xadani, San Mateo del Mar, Colonia Álvaro Obregón, San Francisco del Mar, San Dionisio del Mar, Juchitán de Zaragoza and Unión Hidalgo filed a formal complaint with the Independent Consultation and Investigation Mechanism of the Interamerican Development Bank against the San Dionisio Project (and the project proponent Mareña Renovables) alleging environmental and social impacts in violation of the Bank's operating policies.

line to stall construction activities and prevent any and all government, developer or other pro-wind representatives from gaining further access to the Barra. Even though state police and *sicarios* (assassins, hired thugs) made numerous attempts to dismantle the blockade, using tactics of direct violence, threats against community leaders and their families and attempts to arrest community leaders, the blockade endured. Rather than diminish resistance, the conflict catalyzed a community-wide effort to reassert everyday forms of agency over their traditional decision making processes (*sistema normativa indígena*) and activate their rights to self-determination, which they voice through the political “defense of land and territory”. The “defense of land and territory” is the organizing mission of the main Indigenous social movement in the Isthmus, the *Asamblea de los Pueblos Indígenas del Istmo de Tehuantepec en la Defensa de la Tierra y el Territorio* (APIITDDT).

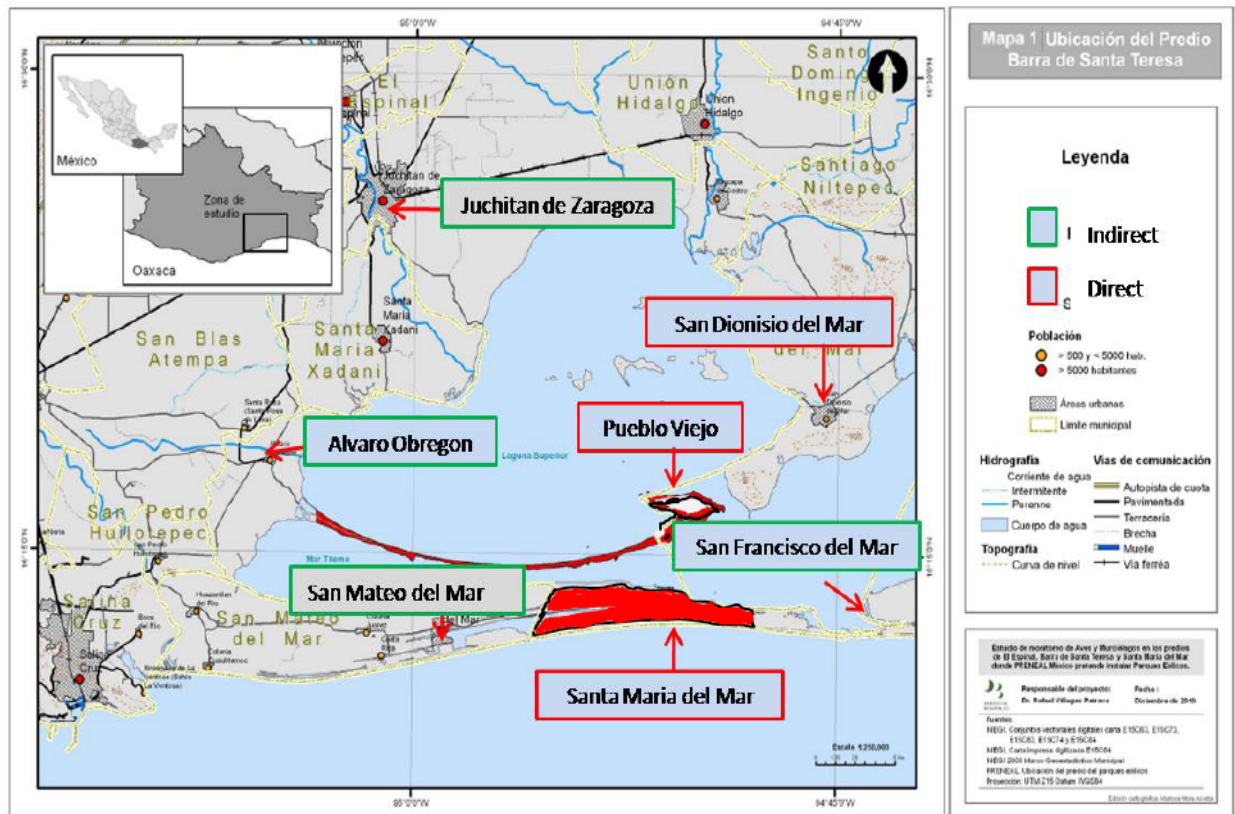


Figure 1: Location of the San Dionisio Project (IADB, 2011)

This vignette highlights the discursive and material *distance* between the experiences of indigenous peoples of everyday forms of oppression, marginalization and exclusion – the structures of violence

(Galtung, 1969; Nixon, 2011) – and the promises of the ‘green economy’ for modern Mexico. While wind energy represents only a small fraction (1,500MW or 8.9%) of total renewable energy production in Mexico today (SENER, 2013), it is estimated that Mexico is ‘gifted’ with between 40,000MW and 77,000MW of economically viable wind energy resources, with roughly half of this ‘free gift’ located in the Isthmus, and the ‘best’ resources located along the Barra (Elliot et al., 2003). By seeking to interrupt the expansion of large-scale wind farming in the Isthmus, indigenous peoples are simultaneously interrupting the Mexican governments broader policy and regulatory strategy to accelerate the development of domestic wind energy production systems for the purposes of ‘climate friendly’ economic growth (Gobierno Federal de México, 2013).

Why and how are ‘clean’ and ‘green’ energy systems generating conflicts and catalyzing indigenous-led resistance movements? In this thesis, I examine how the relations among capital, nature, the state and non-state actors like social movements and NGOs are transforming the Isthmus of Tehuantepec through contestations over the large-scale production of wind energy. Following Howe (2011) I discuss the historical and socio-political dimensions of opposition to wind farming to illustrate the frictions produced at the green energy frontier in southern Mexico, and to situate these struggles in the broader context of global capitalism and uneven development. Conflict is inevitable at these ‘green’ energy frontiers, as projects reconfigure the people, places and things where they take material form, producing frictions that interrupt the common sense normativity of ‘sustainable development’ and its articulation with practices of liberal peacebuilding (Mac Ginty, 2012; Richmond, 2011). Who can really quibble with green energy? Liberal peacebuilding involves a set of dominant discursive and material bordering technologies (including liberalization, democratization, development, human rights, and free trade) that are represented as ‘neutral, objective and benevolent’ practices of government (Mac Ginty, 2012; A. Mitchell & Richmond, 2012; Richmond, 2011). Yet how is this vision of peace conceptualized (and by whom), who is it constructed for, how it is negotiated, what knowledge systems does it privilege, and how does it frame conflict (Mac Ginty, 2012; Richmond, 2011)? The ‘widening’ of the liberal peace discourse and practice leads Richmond (2010) to introduce the concept of resistance as peacebuilding. Resistance as peacebuilding, he says, shifts emphasis away from peace as a project of strengthening liberal institutions and norms towards a focus on local agency, the everyday and contingency (Richmond, 2010). Through

the case study of indigenous-led resistance to the construction of the San Dionisio project along the Barra de Santa Teresa, in the southern Isthmus, I examine the increasingly sustained and increasingly political grassroots opposition to the expansion of large-scale, predominantly privately owned, capitalist wind farming. At this site of contestation, resistance, which involves the collective reproduction of socio-natural relations, challenges the legitimacy (and hegemony) of neoliberal environmental governance while simultaneously creating spaces for alternative livelihood possibilities and new political communities.

Álvaro Obregón is just one of many place-based struggles to the San Dionisio project specifically and, more broadly, to the expansion of capitalist wind farming in the region. The transformation of the Isthmus as a frontier for 'green' capital is made visible through the mobilizations of those communities whose livelihoods and lifeworlds are threatened by the possibility of wind extraction. Binnizá (Zapotec) and Ikkjoots (Huave) peoples opposing wind farms in the region describe how these developments, in the context of the current regimes of neoliberal governance and territorialization, are exacerbating social inequalities and environmental degradation, and leading to the proliferation of violence. De la Fuente López (2013) describes how community leaders and their families who speak out against wind farm developments are being threatened and worse (in this story, she describes the murder, in August 2013, of a community leader who led opposition against the Bii Hioxo wind farm). Increasingly, those who speak out against natural resource extraction are subject to state-sanctioned violence, rendering their injuries justifiable and grievances illegitimate. In terms of indirect violence, Indigenous movement leaders also claim that existing wind farming infrastructures (the assemblages of turbines, transmission lines, substations) have dispossessed their communities of lands and that new farms threaten to restrict their access to coastal fisheries, which they depend on for their livelihoods. López indicates that wind farms currently occupy between 10,000 and 15,000 hectares, but could extend to between 40,000 and 50,000 hectares if the 'full' wind energy potential of the southern Isthmus is developed (2012, pp. 222–223). Few of the promised benefits are forthcoming, whether in the form of equitable rents (for access to private, communal or ejidal lands), community access to low cost electricity or, long-term dignified employment opportunities. Moreover, state sanctioned initiatives to produce the technical and legal conditions necessary to enable the circulation of capital with and through wind (what I describe as a 'green energy')

frontier) have fundamentally excluded indigenous peoples perspectives and do not recognize the non-capitalist values of their existing socio-ecological (or biocultural) systems.

1.1 Green energy through a critical peace theoretical framework

While environmental and resource conflict has received significant attention among geographers (see Horowitz, 2009; Le Billon, 2001; Martínez Alier, 2005; Peluso & Watts, 2001; Perreault & Valdivia, 2010; Turner, 2004), peace-building in relation to environmental contestations has not been significantly theorized. This thesis weaves two distinct bodies of work, critical resource geography and critical peace studies, to examine the contested construction of peace at a resource frontier, a frontier that is often examined as spaces of conflict and violence. The Isthmus of Tehuantepec has long been a frontier, an object of control under different historical modes of capital expansion (Baletti, 2012). Resource geographies provide important theoretical and methodological insights that highlight the politics of peacebuilding in the contemporary context of the expansion of 'green' capital with and through wind.

Theorizing peacebuilding at this resource frontier provides a way to disentangle conflict from violence and, in doing so, it allows us to understand place-based struggles as sites “where new forms of peace begins to be imagined and contextualized in everyday terms” (Richmond, 2011, p. 143). Broadly within the framework of political ecology, which emphasizes how conflicts over resources are simultaneously struggles over ecological, social and political dimensions (Peluso & Watts, 2001) and part of “larger gendered, classed, and raced struggles” (Zografos & Martínez-Alier, 2009, p. 1729), critical resource geography problematizes the dominant ways in which the relationship between natural resources, conflict and violence rely upon apolitical and ahistorical epistemologies. This literature shows how violence is central to the structural conditions that are necessary for “the operation of commodity relations” (Huber, 2011, p. 817). In the context of socionatural change under specific historical configurations of capitalism, I draw upon Jason Moore’s (2010a, 2010b, 2011) theorization of capitalism as world ecology to show that crisis of global climate change creates the conditions for the creation, circulation and accumulation of capital in nature, while failing to address the structures of violence that are intrinsic to processes of commodification of nature. Green energy capital operates discursively and materially by demarcating specific people, places and things as valuable (and, in this case, sustainable),

and others as wasted (and, therefore, unsustainable) (Gidwani & Reddy, 2011). Value and waste; that which separates the productive from the idle; the tangible from the mercurial; the rational from the irrational and, borrowing from Mexican anthropologist Guillermo Bonfil (2005) – the modern imaginary from *México profundo*. The interplay between value and waste reproduces patterns of exclusion and marginalization that indigenous Istmeños have resisted throughout history.

While critical resource geography has focused on the generation and generative aspects of environmental conflict, less critical attention has been paid to the contexts and violences of seemingly benign frontiers of ‘green’ energy extraction. The benign construction of the ‘green energy’ frontier in Mexico ignores the material and discursive dimensions of power and justice, and disguises the violence of dispossession and alienation that follow the commodification and enclosure of socionature (Bridge, 2011). Critical peace studies (specifically the literatures on post-liberal peace) decenter questions of agency and resistance in relation to peacebuilding theory and practice (A. Mitchell & Richmond, 2012; Richmond, 2010, 2011). Here, I use it to explain how the place-based struggles of indigenous peoples – those everyday practices that seek to “break the shackles of historic and current relational patterns of repeated violence” (Lederach, 2005, p. 37) – are distinguishable from violence and are, potentially, generative of new sociopolitical relations between conflicting actors. Following Audra Mitchell, I frame the conflictual tactics of Zapotec and Ikioots peoples to interrupt wind farming not as the cause of violence but as everyday political practices of “creating, asserting and protecting elements of plural worlds” (2011, p. 24) in settings of real or apprehended violence. This framing engages in dialogue with Reyes (2012) and Zibechi (2012), whose works on autonomous social movements in Latin America provide continuous inspiration and hope.

As Chapter Three explains, neoliberal environmental governance of wind in Mexico has been a key driver of conflict in the Isthmus. This approach privileges ‘neutrality’ and ‘efficiency’ in relation to the proper management of socionatural relations – including conflictual relations (Mac Ginty, 2012). Thus, technocratic interventions privilege expert knowledge; produce standardized best-practice models, and attempt to mainstream neoliberal norms and values. This, in turn, shapes “how conflicts are understood, discussed and responded to (Mac Ginty, 2012, p. 300). Yet this instrumentalization of scientific objectivity and neutrality in the case of ‘green energy’ suffers, as Latour (2002) and Gregory (2010) illustrate,

because of its entanglement within a neoliberal State that privileges 'consensus' and 'Science' over and above contestation and situated knowledges. Not only do industry produce the technical documentation, non-experts require specialist assistance to translate complex legal, regulatory, and scientific data (Pellow, 1999). It is this dominant articulation of liberal peacebuilding with sustainable development that according to Latour (2002) represents a 'sociality yet to come', where 'difference' is flattened, where conflict occupies an historical past, and the neutrality of Science renders the world as one-dimensional. In the context of this liberal or "virtual" peace, "meaning the empty shell of a state with little relevance to the everyday lives of most of its peoples" (Richmond, 2011, p. 16), the 'sociality yet to come' is one where conflict no longer exists. If 'difference' produces conflict, then the homogenization of 'difference' produces peace. By contrast, I argue that a truly emancipatory peace is not characterized by the erasure of conflict but rather, the erasure of all forms of violence.

In light of the emerging hegemony of 'green economy', I draw on resource geographies to politicize the frictions produced at the new 'renewable energy' frontier in Southern Mexico. This engages with Feminist political geographers (see Koopman, 2011; Loyd, 2012; Megoran, 2011) who push geography to engage more closely with peace by theorizing "specific economic, political and social relations of oppression and domination [violence] and how they articulate (or intersect) in particular historical and geographical moments" (Loyd, 2012, p. 480). Resource geographies provide the theoretical and methodological tools to do this. Like critical peace studies, resource geography scholarship is concerned with reducing violence in all its forms and contributing to transformative social and political practice (see also Watkins & Shulman, 2008). In addition, both literatures seek to understand how status quo experiences of 'peace' or 'sustainable development' can, in fact, be built upon, and therefore reproduce, political ecological conditions of oppression, exploitation and marginalization in specific historical and geographical contexts. Both literatures place importance on the generative possibilities of conflict.

Bringing these literatures together, through a situated analysis of place-based resistance to large-scale private wind farming in southern Mexico, this thesis contributes to knowledge on the importance of distinguishing conflict from violence, and understanding the ways these processes interact. I adopt Audra Mitchell's understanding of conflict as "a form of world-building used to respond to the *threat* of violence (radical, physical, material or structural)" (2011, p. 28 emphasis in original). Violence, she argues, "is the

infliction of harm over which those harmed have no control, ability to intervene or capacity to resist” (A. Mitchell, 2011, p. 25). Johan Galtung first theorized structural violence as the harm inflicted by particular social, political or economic structures (1964, 1969, 1971). In environmental contexts, Nixon (2011) has used the concept of ‘slow violence’ as a way to conceptualize the less discernible forms of violence that are associated with contemporary socioenvironmental transformations. Slow violence, he argues, “occurs gradually and out of sight, [it is] a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all” (2011, p. 2). He argues that these forms of violence disproportionately affect those who have historically been marginalized (see also Martínez Alier, 2005). I argue that struggles in the Isthmus against wind farming are attempting to resist the structural and slow violence of the ‘green energy’ frontier in Mexico.

In the current context of the expansion of ‘green energy’ in Mexico I extend Mitchell’s conceptualization of direct violence, “as purely instrumental and reactive, [occurring] only when human action is impossible” (2011, p. 24), to theorize structural or slow violence as that which attempts to erase possibilities for nonviolent conflict. I use this to bridge these two bodies of literature in order to highlight two things. First, that the unreflexive benevolence of this ‘green energy’ frontier operates politically as a space of ‘virtual’ peace, a smooth and abstract space, that attempts to depoliticize conflict. Second, that the depoliticization of conflicts explains how and why place-based struggles are being rendered as the object of conflict resolution interventions, which under neoliberal environmental governance, center on avoiding, managing or resolving conflict. By that, I mean, conflict interventions into sites of environmental violence, whether led by states or non-state actors like NGOs, risk framing place-based resistance tactics as the cause of conflict to be managed and resolved (Mac Ginty, 2012). If community based resistance is misunderstood and dismissed as the cause of conflict, interventions that are designed to transform environmental conflicts risk erroneously trying to manage communities in resistance, through direct repression or through consent (Gramsci, 1971; Lukes, 1974), while leaving intact the deep structures of violence their struggles make visible. The goal of conflict transformation interventions needs to focus on dismantling structures of violence, not smoothing out of the complex politics of resource conflicts.

1.2 Research questions and objectives

In the context of expanding green energy frontier in Mexico:

- i. How are wind resources in the Isthmus imagined and realized as a new frontier of capitalist expansion? What are the political ecological effects of framing large-scale private wind farming as 'green' and 'sustainable' developments?
- ii. How are social movements resisting the 'green' narrative? What do their interventions tell us about political practice in the context of 'clean energy transition'?

This thesis develops an understanding of the current trends, objectives, discourses and political/social dynamics of (a) claims to land, territory and identity in the region of Isthmus de Tehuantepec, Mexico and (b) of non-governmental organizations (NGOs) interventions in relation to socio-environmental conflicts within this region. The aims of the thesis are to:

- Identify the current trends, objectives, discourses and broad political/social dynamics of social mobilizations against the existing and proposed large-scale wind farms and associated renewable energy infrastructure across the region of the Isthmus de Tehuantepec, Mexico.
- Identify the everyday activities (creative, intellectual, physical) that people across the Isthmus are engaged in as part of their opposition to existing and proposed large-scale wind farms and associated renewable energy infrastructure
- Identify the objectives, motivations, expectations and different forms of assistance being provided by NGOs working in relation to socio-environmental conflicts in the region of Tehuantepec;
- Identify the different relationships between NGOs and governments, other actors, and community-led groups that are mobilizing against existing and proposed large-scale wind farms and associated renewable energy infrastructure across the region of the Isthmus de Tehuantepec, Mexico.

My overall argument is that the Isthmus is becoming a 'green energy' landscape that operates politically as a space of 'virtual peace' that disguises the violence it exacerbates. Indigenous peoples are interrupting the seemingly apolitical nature of green energy, pointing to the distance between what is promised and what actually transpires in the process of capturing and putting wind to work.

1.3 Methods

The data collection for this thesis took place in two phases of fieldwork in Mexico.² The first period took place between May and August 2013. During this time I worked as a volunteer research associate with a Mexican NGO based in Mexico City. For more than eight years now the NGO had been involved in consensus building processes, designing and facilitating processes that bring people together in generative dialogue, in relation to some of Mexico's most pressing social and environmental justice issues. My primary task was to conduct secondary research regarding the application of international human rights laws, access to justice and conflict sensitivity principles that were relevant to the emerging social conflicts being generated by renewable energy projects in Mexico. This NGO had received funding from an international donor to design and implement a consensus-building project for the purposes of documenting lessons from wind conflicts in the Isthmus.

This experience highlighted the challenges for NGOs who seek to intervene in development and natural resource conflicts. These conflicts are complex and are embedded in long histories of environmental and social change. The biggest challenges I observed related to how NGO workers³, understand conflicts and how this understanding translates into program design, how NGOs position themselves in relation to actors in conflicts and how they frame their interventions. Reliance on incomplete analyses means that well-intentioned interventions risk making conditions worse. There is almost no empirical research that attempts to understand the effects of these non-state interventions (In Mexico, forms of "soft" technical assistance have shown the potential to intersect with the neoliberal development projects see M. Walker, Roberts, Jones, & Froehling, 2008). This is problematic because an extensive body of literature demonstrates that mainstream environmental conflict resolution approaches (increasingly led by NGOs) fail to take seriously the politics of environmental injustice that lie at the root of violent conflicts over access, control and governance of natural resources. These

² IRB approval was granted 29 July 2013, see application 13-2478.

³ I intentionally situate myself in this story because I come from the NGO sector myself. For roughly four years I worked as a public interest environmental lawyer for a small NGO in Australia. I was part-time lawyer for about a year (2008-2009) while I continued working as a volunteer urban farmer. In 2010 – 2011 I took a yearlong sabbatical to sail in the Pacific and cycle tour through the Sierra Nevada Mountains in western US. Our approach relied upon strategic litigation, law reform and community legal education as vehicles for supporting positive environmental change. There was a constructed 'apolitical' frame to our work. We were simply lawyers representing our clients' needs.

experiences and reflections shaped the research design for this thesis.

During the first period of fieldwork I developed a descriptive history of the current conflict dynamics in the Isthmus, as well as established networks of local and regional contacts. Following Hall, I used secondary materials (such as policy documents, legal analyses, industry authored project descriptions, media reports from local, state, national and independent media and one documentary⁴) to analyze “the context, the motives and intentions of protagonists and other actors, and the social processes, conjunctures and contingencies that shape current situation and future possibilities” (2007, p. 95). These secondary materials provided the primary means through which to trace (and triangulate) domestic legislative and regulatory changes relating to land reform in Mexico, to changes to Mexico’s electricity system, to the current *reforma energética*, to the assessment and approval of the operating and proposed new wind farms, to allegations of human rights violations, and the processes of Clean Development Mechanism (CDM) registration. I traced the history of these political-economic and legal processes, the actors involved, their motivations, objectives and goals in order to understand how these processes express different dimensions of power (Lukes, 1974).

I also relied upon my experiences in a workshop at the *Comisión del Derechos Humanos del Distrito Federal* (Human Rights Commission, District Federal) that brought together human rights advocates and academics from across Mexico to explore, through a series of roundtable discussions, the operationalization of the World Bank and International Finance Corporation human rights and environmental safeguard policies. Particular emphasis was placed on how these policies were being implemented in relation to specific development projects in Mexico, including examples of wind energy projects from the Isthmus, and how human rights advocates could influence policy.

Between 26 and 28 July 2013, I participated in a three day conference⁵ organized by the *Asamblea de los Pueblos Indígenas en Defensa de la Tierra y el Territorio del Istmo de Tehuantepec* (APIDTTI) regarding wind conflicts in this region. Over one hundred indigenous activists and campesinos/campesinas, academics, NGO representatives and students attended. Day one of the conference was held in the community of Álvaro Obregón. The final two days of plenary were held in the

⁴ ‘Somos Viento’ (2013). Available <http://somosvientodocumental.wordpress.com/>

⁵ El Seminario Internacional Megaproyectos de Energía y Territorios Indígenas – El Istmo en la Encrucijada

Casa de las Culturas in Juchitán. Activists and academics presented short discussions about the history and ongoing political advocacy in the Isthmus. In addition to attending the conference, my colleagues and I drove around the region to inspect the existing wind farms in action. With a colleague from another NGO, I returned to Álvaro Obregón after the conference and stayed two full days in the community. We met with representatives of the *Consejo de Ancianos* and *Policia Comunitaria* and discussed the social conflicts in depth, as well as questions about daily life in the region. Local activists (who were fishermen and farmers) took us to visit the Barra and the site of the proposed San Dionisio project. We stayed the night with the family of a local activist. I have continued to receive media releases issued by the Asamblea and rely on these secondary documents in my analysis.

The second period of fieldwork took place over three weeks in January 2014. This fieldwork consisted of targeted interviews with NGO representatives working in the Isthmus on advocacy or conflict resolution programs regarding their organizations goals and objectives, and how and why they are involved in these conflicts. Interviews with participants focused on how these institutions conceive or understand wind conflicts in order to compare and contrast these remarks with official discourses. A copy of the interview guide is Appendix A. In total, I conducted eight semi-structured interviews in Spanish (between one and two hours each) with representatives of six NGOs currently working in the Isthmus in relation to social conflicts, one social anthropologist who had more than twenty years experience working with Ikjoots peoples in the region of the San Dionisio project, and the one of the spokespersons for the APIDTTI.

Interviews were based on introductions from a contact I made during the summer. The contact had worked as a peace builder in Mexico for more than twenty years. The NGO she worked for had its origins as a mediator in the conflict between the EZLN and the Mexican state in the mid-1990s. One of these NGOs was not currently involved directly in wind energy conflicts in the region, however they were working with indigenous communities in other parts of Oaxaca regarding conflicts over mining and hydroelectricity. All but one interview occurred in Mexico City. Because of threats of violence, this activist / advocate had left the Isthmus. I travelled to San Cristóbal de las Casas, in Chiapas, to meet him.

As an investigative and open-ended research program, case study research involves a fine grained analysis that focuses on “disentangling complex relationships, and tracing sequences of events” (Poteete, Janssen, & Ostrom, 2010, p. 35). Understanding the discursive and material dimensions of large-scale wind farming in southern Mexico foregrounds questions about the relations between capital, nature, the state and non-state actors like NGOs and social movements. Following Escobar (2008), I investigated these questions through tracing the ways in which people, places and things become entangled and in conflict in particular historical contexts in order to identify the material and ideological implications of relations of power in the development and management of wind resources.

As a historical analysis I relied upon multiple sources of data in order to trace the history of ‘green capital’ in southern Mexico and the social and political fields in which this history is embedded (Wodak, 2001). Archival, secondary and interview data were analyzed using critical discourse analysis in order to understand how representations of ‘green energy’ were presented as self-evident and resistance (or opposition) as ‘unnatural’ (Dittmer, 2010; Dixon, 2010). According to Fairclough, critical discourse analysis is “an “analysis of the dialectical relationships between semiosis (including language) and other elements of social practices” (2001, p. 123). I used this approach to examine the ways in which the “words, images and practices” – particularly representations of ‘land’, ‘territory’, ‘value’, ‘waste’, ‘efficiency’, ‘neutrality’, and ‘benevolence’ – contained within these texts are simultaneously embedded within the discursive structures of social life, and that through these structures, gain political significance (Dittmer, 2010; Dixon, 2010). Following Seidman (2006), I first coded interviews in and then grouped these themes together and identified patterns across the interviews and connections with archival data. Key themes I interrogated included (a) the distribution of environmental costs and benefits, (b) misrecognition of particular lived experiences and the ‘values’ of those experiences (through processes of disrespect, insult and degradation); (c) processes of inclusion/exclusion in decision-making and negotiation of land access contracts; (d) and processes that enabled or constrained political organizing (Sen, 1999). These categories have helped make sense of substantive and theoretical pluralism of environmental justice (Fraser, 1999; Schlosberg, 2007; Walker, 2009) as well as their historical continuities and divergences (Wakild, 2013).

Research findings will be shared with research participants. In relation to organizational participants (NGOs), the purpose of participant observation and the sharing of research findings will be to support them, where necessary, in refining project goals and future program interventions.

1.4 Organization of the thesis

This thesis is organized in five chapters. In Chapter Two I explain the theoretical framework used. It integrates resource geographies and critical peace studies to theorize the frontiers of wind power, that is, how the conflicts produced by the enclosure of lands and the reconfiguration of territories for the purposes of large-scale, capitalist, wind farming in southern Mexico illustrate the frictions of green capital. These literatures provide the framework for the environmental political history of wind farming and the analysis of how indigenous political actions contest 'green' neoliberal development in this region. Under conditions of neoliberal environmental governance, conflict resolution interventions by non-state actors like NGOs must effectively navigate this complex terrain of power in order to avoid the trap of becoming unsuspecting vehicles that contribute to flatten politics at this 'green energy' frontier, leaving intact the deeper structures of violence these projects are at risk of exacerbating.

In Chapter Three I examine the emerging 'green energy' landscape in Southern Mexico. I present the current international policy debates surrounding the post-2015 development agenda to illustrate the emerging hegemony of 'green energy' projects. Because they are discursively framed as necessary for the purposes of mitigating the worst extremes of anthropogenic climate change, these projects are being insulated from critical scrutiny. Within the discourse of 'green economy,' 'sustainability' operates as a legitimizing political discourse in two ways. First, it disguises the conditions of oppression, marginalization and exploitation (the structures of violence) that, in the case of the Isthmus, are being exacerbated through the mechanisms by which these projects are being designed and implemented. Second, the notion that 'clean energy' in the context of dangerous anthropogenic climate change is *harmless* presents an epistemic closure. This epistemic closure risks producing spaces where conflict is no longer possible and place-based struggles are erroneously framed as the cause of conflict that must be managed. By smoothing out the political, wind is represented by the Mexican state, private industry and international financial institutions not only as an abstract or fictitious commodity, that has no material basis in production, but also a 'sustainable' commodity that it intrinsically 'benevolent'.

In Chapter Four I present an environmental history of the Isthmus as a capitalist wind energy landscape. By explaining the successive reconfigurations of land and territory of the Isthmus through which wind resources in the Isthmus came to bear capitalist value, e.g., through relations of production, enclosures, and shifting conceptualizations of waste/value, I illustrate how this new energy landscape is leading to the proliferation of direct, indirect and structural violence. I show that by failing to deliver material environmental and social gains, the promises of the 'green economy' in Mexico remain unrealized. In terms of environmental benefits, the recent *reforma energética* is likely to massively increase Mexico's total greenhouse gas emissions, erasing any of the purported 'climate' benefits gained from increasing the proportion of electricity produced by renewable energies. In terms of social benefits, social inequalities in southern Mexico, where the bulk of large-scale wind energy projects are located, have increased. In particular, even though there are now eighteen wind farms operating in the southern Isthmus, residential electricity tariffs in this region have increased (Interview 7, 24 January 2014). This is an unsurprising conclusion given fourteen of these wind farms produce electricity wholly for private industrial and retail consumers.

In Chapter Five, I examine how increasingly radical forms of indigenous political resistance interrupt the expansion of capitalist wind farming across the Isthmus. I focus on place-based struggles because, as John Paul Lederach eloquently puts it, "while change is perceived and understood to be broadly social, national, even global, for people affected by the conflict, the authenticity of the change is tested in the public arena of greatest accessibility and proximity: the local community" (2005, p. 58). This chapter engages with this need to test the authenticity of the changes promised by the 'green economy' through situated analysis of peoples' everyday experiences and tactics of political action. This chapter has two objectives. First, I seek to show how contemporary struggles against capitalist wind farming, although uneven, continue Zapotec and Ickjoots peoples' historical struggles for political autonomy and collective self-determination. Second, I show that as indigenous tactics of resistance are increasingly political as state-sanctioned repression increases, signaling a re-politicization of indigenous peoples' subjectivities. By attempting to erase possibilities to nonviolently resist threats of harm, state-sanctioned repression operates not only as direct violence in the short term but also as a form of structural (long term, slow) violence that is constitutive of climate capitalism more broadly. In light of this, the technical support

provided by NGOs, particularly in terms of information gathering and legal representation, although still important, has been superseded by indigenous led efforts to strengthen their internal cohesion and the performance of their alternative development visions.

In the conclusion I examine what these place-based struggles to resist the expansion of capitalist wind farming teach us about transformative social and political practice in the context of conflicts over socionatural change for a 'clean energy transition'. The purpose of this chapter is to engage in dialogue with policy makers, international development foundations and NGOs whose objectives are broadly oriented around social justice and the transformation of socionatural conflicts. This thesis will be given to participants with an open invitation to question and challenge the analysis. I highlight how movement activities and the agency that people are exercising are constitutive of peacebuilding as a process and demonstrate the ways in which alternative visions of peace are being enacted (what Koopman (2011) describes as 'alter-geopolitics'), where they are being enacted, and by whom. I argue that closing the spatial, temporal and epistemological distance between NGO interventions and the everyday lives of Istmeños and Istmeñas can open spaces for indigenous peoples to continue to nurture their autonomous capacities, their visions of development and heal the wounds of historical injustices. This is the nature of transformative political practice at this 'green energy' frontier.

CHAPTER 2: CONTESTING THE VALUE OF WIND

This chapter integrates critical resource geographies and critical peace studies to theorize wind power as a 'green energy' frontier. It explains how the conflicts produced by the enclosure of lands and the reconfiguration of territories for the purposes of large-scale, capitalist, wind farming in southern Mexico illustrate the frictions of green capital. These literatures provide the framework for the environmental political history of wind farming and the analysis of the ways in which indigenous political actions contest this form of 'green' neoliberal development. Under conditions of neoliberal environmental governance, conflict resolution interventions by non-state actors like social movements and NGOs must effectively navigate this increasingly complex terrain of power in order to avoid the trap of becoming unsuspecting vehicles that contribute to flatten the complex politics at this 'green energy' frontier, leaving intact the deeper structures of violence these projects exacerbate.

2.1 Frontiers of wind power

I begin with theorizing the frontiers of wind power and the conflicts that are inevitable at them. Conflicts involving siconatural change are conceptualized in many ways due to historically and geographically specific contexts within which they occur and, the ontological and epistemological foundations upon which analysts draw (Escobar, 1999, 2008, 2010; Paulson, Gezon, & Watts, 2005; Peet, Robbins, & Watts, 2011; Peet & Watts, 2004; Robbins, 2004). In environmental contexts, Turner frames them as "social conflict (violent or nonviolent) associated with both struggles to gain access to natural resources and struggles relating from the use of natural resources" (2004, p. 864). In their analysis of escalating opposition to wind farms in Catalonia, Zografos and Martínez-Alier suggest that environmental conflicts "tend to be part of larger gendered, classed, and raced struggles" (2009, p. 1729). Political ecology provides the broad framework for examining how conflicts over wind farming in the Isthmus are simultaneously ecological, social and political (Peluso & Watts, 2001) and, are part of larger, historical, struggles. Political ecologists have developed diverse theoretical and methodological tools

through which to understand environmental conflict dynamics and new tools are being developed in order to work through the deficiencies of resource curse, environmental security and common property theories of environmental conflict (Escobar, 2010)⁶. The two central deficiencies Escobar (2010) identifies relate to essentialist concepts of nature and the persistent failure to include theorizations of power. I use these markers to synthesize the main contributions of political ecology to the study of environmental conflicts broadly, and apply them to understand the frictions produced by the expansion of 'green capital' in southern Mexico.

'Green economy' represents the master discourse of neoliberal environmental governance that promises to restrict the massive global hemorrhaging of biodiversity and irreversible warming of the atmosphere, without interrupting economic growth. It reproduces a realist or essentialist epistemology that is implicit in the three main policy responses to environmental conflicts⁷. Realist or essentialist epistemologies treat 'nature' as an unproblematic object – a natural resource – that is always already external to society, unchanged across space, and time. Nature and society in this reading are conceived in Cartesian duality (what Latour (1993) describes as the 'modern constitution'). Natural resources, like wind, are out there to be discovered (and appropriated and transformed for the purposes of human progress – while mitigating the worst extremes of climate change) through (economic) rational and scientific (technological) endeavors. The success or failure of its management (and the management of those who interrupt it) is determined simply by the 'quality' of the governing institutions. Donna Haraway describes the erasure of history and politics, and in this case environmental political history, as "the god trick of seeing everything from nowhere (1988, p. 581). Purporting to be ahistorical and apolitical is, of course, a political act that attempts to flatten the complex politics of resource geographies, and, fail to get

⁶ While Escobar does not suggest that political ecology is limited to the study of environmental conflicts, these social phenomena have been a central focus.

⁷ In the environment and development literatures, three 'policy driven' perspectives of environmental conflict dynamics dominate, highlighting either resource abundance, scarcity or, the absence of private property regimes as the determining causal factors. These dominant narratives of environmental change and conflict have long lineages. Robbins (2004) using the nomenclature of eco scarcity (conflict driven by absolute population growth) and modernization (liberal and economic efficient solutions can create 'win-win' outcomes – traces these to the environmental determinism of the 1700s and Thomas Malthus's problematic population growth/decline thesis. Notwithstanding the contemporary popularity of these dominant approaches, they have been widely and consistently criticized by critical theorists for over simplifying the social, historical and cultural dynamics of resource making and violence and, thus fail to adequately incorporate questions of power and justice (see for example Le Billon, 2008; Peluso & Watts, 2001; Perreault & Valdivia, 2010).

to the roots of the problem (that it ostensibly seeks to address), namely the conditions of oppression, marginalization and exclusion – structures of violence – that underpin the uneven development of global capitalism (Arsel, 2011). This results in a critical, though strategic, omission – any discussion of “the unsustainability of the prevailing industrial consumerist approach to development and the resulting myriad of economic, political and ecological conflicts it creates” is quickly dismissed as irrelevant (Arsel, 2011, p. 453).

Reframing nature/society as mutually constitutive (socionature) has significant ontological and epistemological implications that inform the ways in which environmental problems in general and, in this case, conflicts over wind farming, are conceptualized. History and politics matter! These alternative conceptualizations of environmental conflicts can be framed around two tenets: first, that nature-society be studied not as separate categories – divorced from histories and geographies – but “in terms of the constitutive processes and relations – biological, social, cultural, political, discursive – that go into its making” and, second, that researchers resist reducing nature to a unified, essential, pre-given order (Escobar, 2010, p. 95). Further, “there cannot be a materialist analysis that is not, at the same time, a discursive analysis” because discourse “is the process through which social reality comes into being” (Escobar, 2010, pp. 92–93). This thesis engages, rather than avoids, the complexities of socionatural relations at this ‘green’ energy frontier and challenges the essentialist epistemology of economic reductionism and its implicit neoliberal political ideology.

In a recent progress report that focuses on resource geographies of carbon, Bridge reinforces this approach to explain how resources, such as coal, oil, gold, copper, biodiversity, forests, and fisheries are “products of cultural, economic and political work” (2011, p. 821). In his detailed analysis of the socionature of the commodity (both as object-in-itself and as a sociopolitical set of relations), Halewood (2012), returning to an example used by Marx in *Capital Volume One*, describes how the physical properties of magnets (its iron attracting quality specifically) is not a thing-in-itself (forever fixed, discoverable through science). Rather, as Marx pointed out, it took on a particular usefulness only in relation to a particular historical moment. In the context of wind energy, Pasqualetti (2000) described the historical significance of wind energy and the important symbolic place of the windmill within the imaginary of the self-sufficient American (colonial) ‘frontier’. In the Isthmus of Tehuantepec, wind energy

is marked by a different discursive, symbolic and material usefulness that is articulated with ongoing processes of neoliberalization, associated with the operationalization of the North American Free Trade Agreement (NAFTA), the emerging 'urgency' of anthropogenic climate change, and with the increasing energy costs associated with fossil fuels.

As existing reserves of fossil fuels are depleted and new 'sources' of value are identified in 'green' renewable resources (and their commodification and circulation in the global economy made possible through new socio-technical and market-based devices), the 'resource frontier' of capital extends into previously unimagined areas. It's discursive construction as a 'green' and 'sustainable' frontier has two significant consequences. First, it depoliticizes the forms of violence that are constitutive of processes of commodification and enclosure of nature. Second, it attempts to produce a smooth, abstract, or 'virtual peace' where structural violence is ignored, political conflict no longer exists and disputes are understood in terms of competing 'interests' that can be evaluated around a common (equivalent) economic denominator, promising 'win-win' resolutions for the relevant liberal subjects involved. In the following sections I develop this argument fully.

2.2 Global Ecologies of Green Energy Capital

Today's wind energy production in the Isthmus captures wind and puts it to work for the benefit of predominately private companies both in Mexico and internationally. By harnessing its movement 'effort' through complex assemblages of turbines, towers, cables, transmission lines and substations – surplus value is extracted and embodied in commodities that can be exchanged in local and global markets. In this case the commodities appear as mega-watts (MW) and carbon-credits. Both of these commodities are exchangeable via the money form. They are also embedded in other systems of capitalism production, through the retail and industrial activities of the private firms that are currently benefiting from the 'clean' electricity and carbon offsets generated in the Isthmus, and therefore represent capital inputs as well as commodities (Henderson, 1998).

Jason Moore's theory of capitalism as world ecology describes how the socionatural transformation of nature is constitutive of capitalism as a world ordering system. Socionatural transformation continues capitalisms inherent tendencies to (a) create conditions of environmental crisis and (b) for these crises to enable new configurations for the creation, circulation and accumulation of capital. Building on and

extending James O'Connor's (1998) theorization of the second contradiction of capitalism, John Bellamy Foster's (2000) theory of the metabolic rift (see also Clark & York, 2005, 2008) and David Harvey's (1996) work on accumulation by dispossession, this theory "joins the accumulation of capital and the production of nature in dialectical unity" (Moore, 2011, p. 2). I use this to situate Mexico's wind power frontier and its articulation with the political discourse of 'clean energy transition' in the historical context of capitalism and uneven development (Moore, 2010a, 2010b, 2011). Capitalism as world ecology is used here to show how the commodification of wind (and its new configurations of accumulation) is both made possible because of the atmospheric degradation that has been produced through capitalism's exploitation of 'cheap' fossil fuels as well as the way the commodification of wind continues capitalism's socioenvironmental destructiveness, through failing to reconcile questions of social and environmental injustice (see also Böhm, Misoczky, & Moog, 2012).

2.3 Violence of 'green' commodification and enclosure

Violence is central to the structural conditions that are necessary for "the operation of commodity relations" (Huber, 2011, p. 817; for an overview see Bridge, 2011, 2013). By tracing the diverse spatial practices through which winds in the Isthmus came to bear capitalist value I show how the spatial practices of land enclosures and territorialization are constitutive of violence. Critical resource geographers theorize that nature is transformed into resource through the entangled logics of economy, territory and subject formation (Bridge, 2011, 2013). Following Bobrow-Strain (2007), I understand the term logic not to suggest definitive and separate categories, but simply as a heuristic device to theorize the specific spatial practices through which nature comes to bear capitalist value. Understanding how these logics intersect, produce friction, and exacerbate forms of structural violence brings together the related theories of 'accumulation by dispossession', commodification and enclosure, theories that emphasize the different roles played by state and non-state actors in processes of socational transformation under specific conditions of capitalist expansion. Connecting to the discussion above, the 'discovery' of natural resources, by ignoring the material and discursive dimensions of power and justice, disguises the violence that accompanies the dispossession and alienation that follows the commodification and enclosure of socational nature (Bridge, 2011). I specifically focus on the means through

which land and territory have been reconfigured to enable capital to circulate⁸. Land and territory are two key analytics used by indigenous social movements in the Isthmus to frame their political struggles against the expansion of large-scale wind farming in this region and signal the creative destruction of non-capitalist values (Harvey, 2006).

In the context of land, I draw on Marx (1978), specifically his theorization of primitive accumulation, and Polanyi (2001), specifically his theory of ‘fictitious commodities’ – those things (land, labor and capital) that are treated as commodities even though they have no material basis in production. Marx defined primitive accumulation “as the historical process of divorcing the producer from the means of production” (Engels & Marx, 1978, p. 432). In the context of the analysis of enclosures in Britain during the 1700-1800s, Marx argued that these were violent acts of theft⁹ through which ‘labor’ and ‘land’ were mobilized (literally and figuratively) for the purposes of capital production, circulation and accumulation. Marx analyzed examples of enclosures (the land laws – which Alden-Wily (2012) has recently revisited to historicize contemporary examples of ‘land grabbing’) and the criminalization of ‘vagabonds’ or commoners at a particular historical and geographically specific conjuncture. In *The New Imperialism* Harvey (2005) argued that primitive accumulation was not a process that was exclusive to periods of historical agrarian transition (from feudalism to capitalism). Rather, it was ‘intrinsic’ to capitalism as a historical system of socio-natural organization.

Harvey’s extension of primitive accumulation – what he described as ‘accumulation by dispossession’ – set out to “capture the diverse dispossessions being generated today by fully developed industrial and financial capitalism” (Levien, 2011, p. 456). However, Levien argues, Harvey did not provide an adequate “theory of how, why and with what consequences [accumulation by dispossession] emerged as an important phenomenon” (2011, p. 456). Levien’ defines accumulation by dispossession as “the use of extra-economic coercion [state institutions and processes] to expropriate means of subsistence, production or common social wealth for capital accumulation” (2011, p. 457). He shows accumulation by dispossession to be a political process “through which *the state’s* coercive power is deployed to *make a key condition of production* – land – *available for capital* in a context where

⁸ The question of subject formation is beyond the scope of this research (see Valdivia, 2008, 2009).

⁹ Marx’ intervention was strategically made to interrupt the ostensible peacefulness of Adam Smith’s theory of ‘original accumulation’.

increasing demand confronts the barrier to accumulation represented by smallholding peasants and incompletely capitalist rural land markets” (Levien, 2011, p. 457 my emphasis). Bridge (2013) makes a related argument building on neoliberal natures literatures (see for example Heynen, McCarthy, Prudham, & Robbins, 2007b). Like Levien he argues that the state is an extra-economic actor (Bridge, 2013). However, he suggests that “the significance of neoliberalization lies not in marketization, but in the transformation of property on which market exchange ultimately rests” (Bridge, 2013, p. 7).

I use Levien (2011) and Bridge (2013) to identify the specific political processes deployed by the Mexican state to make land in the Isthmus available for acquisition by private companies for the purposes of capturing wind. This goes part of the way to explain Howe’s (2011) concern that the materiality of wind makes it resistant to enclosure and therefore different from conventional ‘subterranean’ natural resources, where ownership of oil, coal and gas is typically vested in the national government (with the government exercising its ‘territorial sovereignty’ to grant access rights to private or state-owned companies in exchange for ‘royalties’ or tax revenues) (Emel, Huber, & Makene, 2011). She astutely observes that ‘wind’ is not a typical natural resource, “the corpus of the wind, its scant materiality, its mercurial existence, make for a different sort of commons—one that is perhaps particularly resistant to true enclosure” (Howe, 2011, p. 8). Yet wind can be and is being farmed. In the case of wind farming, land must be enclosed for the purposes of fixing electricity infrastructure in place. Without these fixtures and networks of transmission, the usefulness of wind as a source of ‘green capital’ would be stymied. Mitchell (2009, 2011) takes this approach further to illustrate that the materiality of the resource in question produces distinct configurations in terms of how land, labor and capital are mobilized to enable the extraction of specific resources¹⁰, as well as the expressions of political power that are enabled and constrained throughout these processes. What is required, building on these authors, is an understanding of how technologies of measurement, government and exchange have been able to secure or enclose wind’s ‘scant materiality’ as well as the tactics that indigenous peoples (and their collaborators) use to contest these technologies of green governmentality (Goldman, 2005).

The second logic of socionatural transformation examined in this thesis is ‘territory’. According to Bridge, “[r]esource-making activities are fundamentally matters of territorialization – the expression of

¹⁰ As Bakker (2003) describes, some resources are more ‘unruly’ or ‘uncooperative’ than others.

social power in geographical form” (2011, p. 825). James C. Scott (1998) argued that statecraft operates through mechanisms of ‘simplification and legibility’. While the *figure* of the strong/unified state has retreated, Bridge (2013) explains that the “technical devices of measurement and visualization – cartography, calculation and miniaturization – through which resources and the capacities for their control” remain key analytical tools suitable for the study of ‘wind’ in southern Mexico, and which enable “a more complex understanding of the relationship between scientific and political practice” (Bridge, 2013, p. 3). This approach unites ‘technologies of rule’ with Foucauldian understanding of capillary social power. In relation to state making and neoliberal environmental governance specifically, Whitehead et al (2007) argue that the key to understanding how governmental power is realized through the transformation of nature is in focusing on “the processes through which states attempt to frame the natural world” (Whitehead, Jones, & Jones, 2007, p. 14). Framing works to bring focus to that which can be ‘measured and managed’ while simultaneously excluding that which cannot. In other words, the accounting, measurement and regulation of wind via the commodity form – Foucauldian technologies of government that operate via circuits of expert knowledge and institutional legitimacy – have spatial, scalar and political effects.

While the Mexican state plays a key role in the territorialization of the Isthmus associated with the commodification of wind, they are not the only practices of territorialization taking place in this region. I investigate territorialities produced ‘beyond the state’, “in order to problematize understandings of access, control and authority as they relate to natural resources” (Bridge, 2013, p. 6). That is, in recent works in resource geography, there is an explicit intention to “denaturalize the institutionalization and territorialization at the scale of the state” because state’s institutions and territorialities “do not exhaust the possibilities for how political-ecological life is organized” (Bridge, 2013, p. 6). In the contemporary context of neoliberalization in Mexico, non-state actors, including foreign governments, private companies and indigenous peoples, enact different practices of territoriality that shape the Isthmus as a site of political conflict today¹¹. It is not that non-state actors replace state rulemaking, but rather that contemporary statecraft always involves a “variegated sovereignty scape” (Bridge, 2013, p. 6 following Ong (2006)).

¹¹ For Lund (2011), the shifting transformations of property (and access to land) occurs through multiple institutions – not only through the state – who seek to exercise authority to define or enforce land access – producing fragments of sovereignty that coalesce in unanticipated ways. Implicit in Lund’s argument is that the process of coalescence is

In the Isthmus, the relational and decentered conceptualization of multiple sovereignties coalescing and hybridizing in particular conjunctures explains the articulations between Mexican law reform processes in the early 1990s – removing Constitutional protection of ejidal lands against privatization and permitting private sector participation in the production of electricity - that enabled subsequent investments by foreign companies in wind energy production. It also emphasizes the extension of foreign and non-state control that is articulated through NAFTA and, specifically in the context of green energy, the registration of wind farm projects via the Clean Development Mechanism (CDM) of the Kyoto Protocol¹². Control, or some measure of it, operates on the basis that these projects would not be realizable without the financial incentives produced through CDM and the emerging carbon markets in Europe or Australia¹³, for example. Indigenous led resistance in Álvaro Obregón, for instance, interrupts these efforts to produce a smooth space for capital expansion. It is an example, contingent or otherwise, of Alvaro Reyes' hypothesis, in his synthesis of social movement political action in Latin America, that "imaging life beyond the capitalist mode of production has become completely inseparable from the necessity to practice politics beyond the liberal state and representation" (2012, p. 22).

2.4 Creative destruction of non-capitalist value

The violent enclosure of land and the reconfiguration of territory for the purpose of 'clean energy' require a legitimizing discourse. Gidwani & Reddy (2011) trace the legitimation of the commodification of nature to the philosophy and political theory of John Locke. For Locke, ownership (of a thing) is created through the act of laboring that removes the 'thing' from the 'state of Nature'. Property, he argued, comes into being through the labor process, specifically with individual, as distinct from collective, labor producing particular 'rights' to/in a passive, idle, yet bountiful Nature. This was a selective conceptualization of property and ownership used to justify the enclosure/exclusion and appropriation of the commons that characterized the late 1600s (Macpherson, 1978). To justify his political project Locke deployed the language of 'rationality' and 'industry' mediated through the Natural law of Christian

uncertain and unpredictable. It is simultaneously a process of hybridization that opens up political possibilities for institutional change (see also Blaser, 2004).

¹² A protocol to the United Nations Framework Convention on Climate Change (1992)

¹³ It is unclear how long Australia's domestic carbon trading system will continue. The recently elected Prime Minister Tony Abbott has made 'a blood oath' to repeal it as soon as he gains control of the Federal Senate on 1 July 2014.

theology. This selectivity enabled Locke to distinguish different bodies and different forms of laboring, intentionally misrecognizing the labor of women, servants, slaves or indigenous peoples. As Rose (1990) explains Locke's narration was designed to naturalize his self-serving theorization of property. Gidwani & Reddy (2011) explain that the Lockean theory of property justifies the commodification of the common through constructing it as 'waste' and, therefore, without 'value'. The demarcation of 'waste', and its specific discursive and material construction in relation to land and bodies, "obscures the fact that they are enmeshed in circuits of value and offer critical resources that supplement the income of the poor and marginalized" (Gidwani & Reddy, 2011, p. 1640). In the context of socionatural change under the specific historical configurations of capitalism in the southern Isthmus, this thesis explains how the violence of 'green capital' operates discursively and materially by demarcating specific people, places and things as valuable (and, in this case, sustainable), and others as wasted (and, therefore, unsustainable) (Gidwani & Reddy, 2011). As Blaser et al (2004) and others clearly explain, indigenous peoples all over the world continue to demonstrate that this economic reductionism fails to capture the richness by which they claim and sustain their territories through material and embodied practices (in the case of urban struggles see Blomley, 1998). As this thesis will show, indigenous struggles over land and territory in the Isthmus do just this.

The imagination and production of the Isthmus as a 'green energy frontier' creates the conditions for new encounters between extractive industries, governments, Indigenous peoples, social movements, NGOs, technical experts, and so on. Increasingly visible through these encounters, communities affected by the expansion of 'green capital' are mobilizing against it, claiming rights to land, territory and self-determination (broadly, to social and environmental justice). As part of a broader body of ecological Marxism, I used capitalism as world ecology to describe how contestations over 'value' are constitutive of socioenvironmental conflicts (Moore, 2011). Robertson and Wainwright (2013) argue there is a need to take this analysis of socioenvironmental change beyond "the crisis tendencies that emerge downstream of this abstraction" to an engagement with Marx's theory of value¹⁴. For these authors, the relevance of

¹⁴ Marx's theory of value, with labor as the source of value, was at the core of his critique of political economy (see also Smith, 1984 and the production of nature thesis). Marx theorized the labor process "as constituting the main metabolic relation between humans and nature" (Burkett & Foster, 2006, p. 118). As Smith (1984) explains Marx provided the basic elements from which to argue that through the labor process (or work, broadly defined) people, places and things are mutually constituted.

Marx' value theory, in the context of the commodification of nature, is that it focuses attention on the processes through which nature "has come to be understood as bearing value" (rather than on how value in nature is measured) (2013, p. 895). In a related argument, George Henderson suggested that "enduring problem" of value for Marx was not simply the problematic of multiple values (or which 'value' is truest). Rather, Marx was preoccupied by the ways in which new political imaginaries are immanent in these struggles" (2013, p. 112). Hence struggles over the different ways in which value in nature is produced are *political* struggles (Dikec, 2012; Swyngedouw, 2011). This opens questions about the historical and geographical processes and political struggles through which wind came to be understood as bearing capitalist (exchange) value. Specifically, understanding how the creation and circulation of value is contested signals the deep structural violence of capitalist relations of production "that gives priority to labor productivity, and mobilizes extra-human nature without regard for the socio-ecological conditions of its (uncapitalized) reproduction" (Moore, 2011, p. 20). While I focus on the frictions of producing capitalist value in wind, the claims to 'survival' and 'life' that indigenous Istmeños are highlighting suggest a deeper, more complex, understanding of value (see Graeber, 2013).

2.5 'Green' energy frontier as a form of 'virtual' peace

State-sponsored commodification and enclosure simultaneously 'produce' resources while dispossessing or alienating existing users from previous material and cultural attachments. This is a process of abstraction. Regarding the ways in which state power is being reconfigured in globalization, Mitchell (1999) describes this process of abstraction - of producing and reproducing lines of difference – as an effect of "mundane processes of spatial organization, temporal arrangement, functional specification, supervision and surveillance, and representation that create the appearance of a world fundamentally divided into state and society or state and economy" (1999, p. 95). I use abstraction to show how the 'green energy' frontier operates as a form of 'virtual peace' in two ways. First, neoliberal technologies of environmental government depoliticize the forms of violence that accompany the commodification and enclosure of nature (and the creative destruction of non-capitalist values). Second, the discursive effect of 'green' energy evacuates the political in an attempt to produce a smooth, abstract, or virtual space where this structural violence is ignored and political conflict no longer exists. I draw upon critical peace studies to develop this argument.

Critical peace studies have developed as a response to the systemic failures of liberal peacebuilding that stem from its un-reflexive pursuit to universalize “liberal institutions, norms, and political, social and economic systems” (Richmond, 2011, p. 1). In *The Transformation of Peace*, Richmond (2005) provides a critical account of the ways in which discourses on peace have changed over time, and, how these changes relate to (consistent with or divergent from) major philosophical traditions (for example, enlightenment thinking, cosmopolitanism, liberalism), methodological and epistemological approaches. He traces three generations of peace building from conflict management (with its emphasis on avoiding direct violence and war), conflict resolution (with its assumption that conflict can be resolved through inter-state diplomacy) to the post-cold war liberal peace. Richmond’s intervention revolves around a critical reading of the ‘liberal peace’ a discourse and set of institutional practices that have come to dominate contemporary international relations and political theory regarding peace. For Richmond (2005, p. 73), the liberal peace is characterized by super-territorial governance, incorporating local, national and transnational actors (public, private, civil) around national sovereignty. He notes the importance for international relations and international law of the principle of ‘state sovereignty’ as it is codified in the post World War Two UN Charter. It involves a set of dominant discursive and material bordering technologies (liberalization, democratization, development, human rights, free trade) that are represented as “neutral, objective and benevolent” practices of government.

In practice, Richmond argues, the liberal peace signifies how attention is diverted towards “states, elites, international actors, security issues and liberal institutions and norms” (2010, p. 666). This suggests an internationalization of peacebuilding, with a focus on “sovereign peace organized around states and their territories” (Richmond, 2010, p. 667), simultaneously failing “to engage with everyday life other than in basic emergency and narrow security terms” (Richmond, 2010, p. 666). Richmond (2011) draws on Foucault in two key respects. First he suggests that implicit in the liberal peace paradigm is the assumption that “societies and international relations are ordered by sovereign governments and where conflict exists, governmentality in a liberal vein is what is required” (Richmond, 2005, p. 73). The key point is the central assumption that conflict can be managed through the correct combination of policies and programs (supported by relevant scientific, rational, objective knowledge) whose targets is individuals. This discussion of liberal peace as an expression of governmentality leads Richmond to

suggest that “global governance aims to increase power over life, rather than death as in geostrategic debates in [international relations], in its attempt to equate good governance with equitable development and neo-liberal economic policy” (Richmond, 2005, p. 73).

The key questions informing this body of critical peace scholarship relate to how peace is conceptualized (and by whom), who is it constructed for, how it is negotiated, what knowledge systems it privileges, and how it frames conflict (Mac Ginty, 2012; Richmond, 2011). Richmond questions whether peace can be conceptualized as an ideal form, a universal and virtuous state of being, or, in fact, whether peace has always been a subjective ontology that is contested and negotiated within different historical and geographically specific moments. For these authors, a central concern is that liberal peacebuilding has focused on neoliberal state-building and bureaucratic efficiency as a way to perfect the nation-state so that conflict is unlikely (Mac Ginty, 2012). Yet conflict is an inevitable and important force of social change.

This project is not limited to warzones (playing a central part of post-conflict reconstruction and development practice), including programs of “marketization, democratization, human rights (supplanting human needs), and rule of law projects (that risk endorsing liberal normativity, elevating private property above other access regimes, and entrenching class, gender and racial segregations). As social movement theorist have illustrated, these projects of neoliberal development have been resisted through various forms of collection action.

This ‘widening’ of liberal peace discourse, leads Richmond to introduce the concept of resistance as peacebuilding. Resistance as peacebuilding, he says, shifts emphasis away from peace as a project of strengthening liberal institutions and norms towards a focus on ‘local agency, the everyday and contingency’. He argues that this directs attention to the ways in which local peoples’ “are resisting aspects of state building or co-opting it, have begun to find ways of claiming ownership of a politics that responds to needs and issues, appropriating liberal peacebuilding, ignoring it or modifying it” (Richmond, 2010, p. 669). Richmond does not, however, situate his discussion of ‘resistance-as-peacebuilding’ in the broader story of social mobilization and collective action.

I use this literature, which places importance on questions of agency and resistance in relation to peacebuilding theory and practice, to explain how place-based struggles of indigenous peoples – those

everyday practices that seek to “break the shackles of historic and current relational patterns of repeated violence” (Lederach, 2005, p. 37) – are distinguishable from violence and are, potentially, generative of new sociopolitical relations between conflicting actors. I extend Audra Mitchell’s conceptualization of direct violence, “as purely instrumental and reactive, [occurring] only when human action is impossible” (A. Mitchell, 2011, p. 24), to articulate it as a structural technique of neoliberal environmental governance that attempts to erase possibilities for everyday forms of resistance. I use this to bridge these literatures in order to highlight how and why place-based struggles can become the object of conflict resolution interventions in liberal development programs, like the case study in question, that center on perfecting the nation-state so that conflict is unlikely (Mac Ginty, 2012). By that, I mean, conflict interventions into sites of environmental violence, whether led by states or non-state actors like NGOs, risk framing place-based resistance tactics as the cause of conflict to be managed and resolved (Mac Ginty, 2012). As Chapters Three and Four explain, neoliberal environmental governance of wind in Mexico has been a key driver of conflict in the Isthmus. This approach privileges ‘neutrality’ and ‘efficiency’ in relation to the proper management of socionatural relations (Mac Ginty, 2012). In so doing, technocratic interventions privilege expert knowledge; produce standardized best-practice models, mainstream neoliberal norms and values, which in turn “shape how conflicts are understood, discussed and responded to (Mac Ginty, 2012, p. 300). These approaches risk flattening the complex politics at play in the Isthmus, and by conflating conflict with violence, actually displace the deep structural violence of ‘green capital’ across time and space (Nixon, 2011).

CHAPTER 3: 'VIRTUAL PEACE' AT THE FRONTIERS OF 'GREEN' CAPITAL

**In the future, there will be no difference
between waste and energy.**



We are going to need multiple alternatives to fossil fuels. 'Sizing the Climate Economy' is HSBC's unique perspective on tomorrow's most promising innovations in the energy sector. Once you've read it, please recycle. The future starts here.

There's more on sustainable investments at
www.hsbc.com/inthefuture

HSBC 

Issued by HSBC Holdings plc. AC22967

Figure 2: Waste as Energy (HSBC, 2013)

Writing about the expanding frontier of 'green capital' in Mexico, I find Figure 2 captivating (and problematic) for the ways in which it communicates the taken-for-granted geographies of 'green energy'. I was troubled first by the bananas themselves; how they evoke sedimented histories of violence and dispossession related to profit-generating capitalist enterprises in the Americas (Soluri, 2005). I immediately recalled the literary significance of the so-called 'banana republics', a colloquialism that describes the violent occupation of the Americas by and for imperial capital. As Pablo Neruda (1991) wrote, in 'La United Fruit Company':

...

*The United Fruit Company
reserved for itself the most juicy
piece, the central coast of my world,
the delicate waist of America.*

*It rebaptized these countries
Banana Republics,
and over the sleeping dead,
over the unquiet heroes
who won greatness,
liberty, and banners,
it established an opera buffa:
it abolished free will,
gave out imperial crowns,
encouraged envy, attracted
the dictatorship of flies:*

...

I expect HSBC did not intend to recall the living history of the exploitation of Latin America's 'open veins' (Galeano, 1997). Perhaps the point is to represent wind farming as a benevolent continuation of otherwise bucolic agrarian landscapes. Perhaps the point has something to do with the 'biofuel' revolution.

The image is troubling in a second sense. Energy has many definitions in the Oxford English Dictionary (2000), both descriptive and normative. In the physical sciences, energy is "the power of 'doing work' possessed at any instant by a body or system of bodies". Linguistically, it also describes a "force or vigor of expression"; the "impressiveness (of an event)", "the ability or capacity to produce an effect"; and "power actively and efficiently displayed or exerted". Where waste and energy becomes one – indistinguishable from the other – the descriptive and normative become blurred. For me, the image of the banana peel turbine (not to mention the recommendation to recycle the ad once we are done with

it) suggests that through the rational discovery of objective 'knowledge', through the efficient display of power, we will free ourselves from wasteful 'desires' and habits. HSBC invites us (the reader) to work vigorously to transform waste and liberate ourselves from our moral desires and practical habits that are inefficient and left to degenerate. Waste is no longer simply a thing (a peel) that is discarded; it is a quality of human existence, the moral and ethical desires that limit our universal potentials. The continued existence of waste implies the unfulfilled promises of the Enlightenment, where Science, rationality and efficiency are necessary with ever more pressing urgency to render us (the otherwise wasted people, places and things) valuable. For Latour (2002) this is a process of rendering the world one-dimensional. This is the expression of self-liberation and self-transformation (Venn, 2006) that inhabits the potentiality of the 'green energy' revolution. In this one-dimensional global ecology of green capital waste ought to be source of 'valuable' energy. How can anyone quibble with that?

In this chapter, I present the current international policy debates surrounding the post-2015 development agenda to illustrate the emerging hegemony of 'green energy' projects in Mexico. Because they are discursively framed as necessary for the purposes of mitigating the worst extremes of anthropogenic climate change, these projects are being insulated from critical scrutiny. I argue that within the discourse of 'green economy', 'sustainability' disguises the conditions of oppression, marginalization and exploitation (the structures of violence). The 'benevolence' of 'clean energy' in the context of dangerous anthropogenic climate change presents an epistemic closure (and the evacuation of the political). This epistemic closure risks producing spaces where conflict is no longer possible and place-based struggles are erroneously framed as the cause of conflict that must be managed. By smoothing out the political, representing wind not only as an abstract or fictitious commodity that has no material basis in production, but also a 'sustainable' commodity. This produces a form of 'virtual' peace where history and politics are smoothed over.

3.1 The post-politics of climate change and green energy

In *Tropic of Chaos: Climate Change and the New Geography of Violence*, Christian Parenti describes numerous instances of the place-based violence that fossil-fuel dependent capitalism has produced. Yet he concludes, "Either capitalism solves the crisis, or it destroys civilization" (Parenti, 2011, p. 241). In the context of anthropogenic climate change, the increasingly hegemonic discourse of energy

transition and 'green capitalism' (see Newell & Paterson, 2010) occupy a socially constructed and tenuous 'consensus', that hovers beyond challenge, outside the realm of the political (Featherstone, 2013; Swyngedouw, 2010, 2013). Geographers and anthropologists argue there is an urgent need to interrogate Western political discourses on the clean energy transition as a way to understand contemporary forms of statecraft, political economy and the operation of power with and through energy (Howe, 2011; T. Mitchell, 2011; Swyngedouw, 2010). While large-scale dam building for electricity generation (and irrigation projects associated with industrial agricultural transformations) has a long history of critique in political geography (Bakker, 1999; Routledge, 2003), cultural anthropology (Ghosh, 2006), political ecology (Kaika, 2006; Mehta, 2011) and political history (T. Mitchell, 2002) among others, similar scale wind and solar energy projects have, notwithstanding their comparatively recent technological viability, by and large escaped similar analysis. In contrast to conventional resource extraction activities (involving, for example, coal, oil, gas, timber or minerals), the harnessing of 'green energies' is discursively constructed as nonintrusive and represented as the 'farming' of limitless and bountiful, wind and sunshine. Governments, private companies and environmental activist organizations alike represent these projects as inherently different from the destructive excavation of conventional resource extraction activities, insulating them from critical scrutiny. Space to scrutinize 'green energy' projects is restricted primarily because they are widely perceived as necessary to avoid the worst extremes of dangerous anthropogenic climate change. This is a form of epistemic closure that that geographers and anthropologists warn against (Swyngedouw, 2010).

Avoiding epistemic closure in the context of 'green energy' is necessary within and beyond Mexico. The rapid scaling up of large renewable energy projects, and their deployment into new frontiers, occupies a central platform in current international policy debates surrounding the post-2015 development agenda. Emblematically the UN Secretary General's Sustainable Energy for All (SE4All) initiative, an initiative that builds upon the Rio+20 sustainable development negotiations and is supported by the International Renewable Energy Agency (IRENA), includes as one of three overall objectives the doubling by 2030 of the share of renewable energy in the global energy mix. Currently "renewables contribute 17% of world total primary energy use" (Nilsson, Lucas, & Yoshida, 2013, p. 4136). SE4All identifies the formal institutions and mechanisms through which to deliver this goal, while underplaying the unintended

consequences that the rapid expansion of large-scale renewable energy projects, in the well-documented case-studies of biofuels (reference) and hydropower, can have in terms of exacerbating socioenvironmental inequalities and triggering localized conflicts. The initiative adopts implicitly a neoliberal free market orthodoxy through which national laws and policies are used to drive private investment in the new 'green energy economy', innovation and technological expertise originate and flow from the private to public sectors (often through public-private partnerships); and, civil society provides the 'socialization' necessary to effect and sustain these changes. The political discourse driving Mexico's 'clean energy' transition reproduces this neoliberal environmental governance orthodoxy.

3.2 Mexico's harmless 'farming' of limitless wind

For the Mexican government, international financial institutions and wind industry representatives, the latest configuration of extractivism in the Isthmus is centered on the need for non-fossil fuel energy sources. In Mexico, wind farming (along with hydropower, geothermal and biomass) occupies a key position in a broader political and regulatory strategy to accelerate the development of domestic renewable energy production systems for the purposes of 'climate friendly' economic growth (Gobierno Federal de México, 2013). Following the enactment of the *Ley General de Cambio Climático* in July 2012, a law establishing the federal regulatory framework for mitigating climate change risks and facilitating the transition to a 'green economy', the government produced the National Strategy on Climate Change (*Estrategia Nacional de Cambio Climático*). As the principal policy document administering Mexico's response to global climate change, it includes as one of its key pillars the accelerated development of renewable energy production. It anticipates that within ten years more than 35% of Mexico's domestic electricity needs will be met by renewable energies (Gobierno Federal de México, 2013). This is a 10% increase on 2010 levels. Within forty years half of Mexico's electricity needs are to be met by renewables. While wind energy represents a small fraction (1500 MW or 8.9%) of total renewable energy production today (SENER, 2013), it is estimated that Mexico is gifted with between 40,000MW and 77,000MW of economically viable wind energy resources. According to the 2010 National Census, this is roughly three times the current electricity demand of the entire residential sector (INEGI, 2010). Roughly half of this potential is located in the Isthmus of Tehuantepec, Oaxaca (Elliot et al., 2003).

There are eighteen large-scale wind farms operating in the Isthmus today (see Appendix 1). Combined they have the capacity to generate roughly 1,500 MW of energy (equivalent to meeting the electricity demands of about 360,000 homes¹⁵). Of these the state *Comisión Federal de Electricidad* (CFE) operates two (La Venta II and III). Four private projects supply electricity to CFE through private supply contracts (Oaxaca I, II, III and IV). The remaining twelve farms generate electricity wholly for private consumers including Wal-Mart Mexico, Femsa-Coca Cola, Bimbo, CEMEX and Met-Mex Peñoles. Planning and approvals for an additional 1000 MW is advancing quickly (although, local opposition to these farms has escalated and projects, like the San Dionisio project mentioned above, have stalled). Today new wind farms are being developed beyond Oaxaca, with projects being planned and constructed in Baja California Sur, Nuevo León, Tamaulipas and San Luis Potosí.

Consistent with ongoing processes of neoliberalization that the Mexican state, along with other non-state actors, has unevenly pursued during the last thirty years (Wilson, 2011a, 2013), the power of wind is being harnessed through the logics of market-based environmentalism, specifically through its commodification and privatization. ‘Green economy’ - or its synonym ‘free market environmentalism’ - is discursively framed as “a mode of resource regulation that offers the hope of a virtuous fusion of economic growth, efficiency and environmental conservation” (Bakker, 2011, p. 349). Mexico is not alone in pursuing these strategies in the context of climate change mitigation. Newell and Patterson (2010) describe global efforts to ‘decarbonize’ the economy, without interrupting economic growth, as climate capitalism. For Howe (2011) the articulation between climate change mitigation and the commodification of nature (or climate capitalism) signals a tension between a desire for ‘win-win’ solutions and a risk that these wind projects (registered under the clean development mechanism) are merely a reconfiguration of colonialism. This colonialism is symbolized by the dominance of Spanish wind energy companies in promoting, developing and managing wind farms in Tehuantepec and, the concern that these projects reproduce historical patterns of uneven development (and cultural assimilation) with green electricity being transmitted to the industrial centers of Mexico (shown on Figure 3, below, as being in the north and center of the country), profits being exported to the Global North, and farmers and fisher folk being

¹⁵ According to the Massachusetts Office of Energy and Environmental Affairs, 1MW wind turbine can power between 225 and 300 homes.

displaced from access to farmland and fisheries. In Mexico this virtuous fusion, the promise of 'green economy' is a fiction, with the social and environmental benefits yet to materialize.

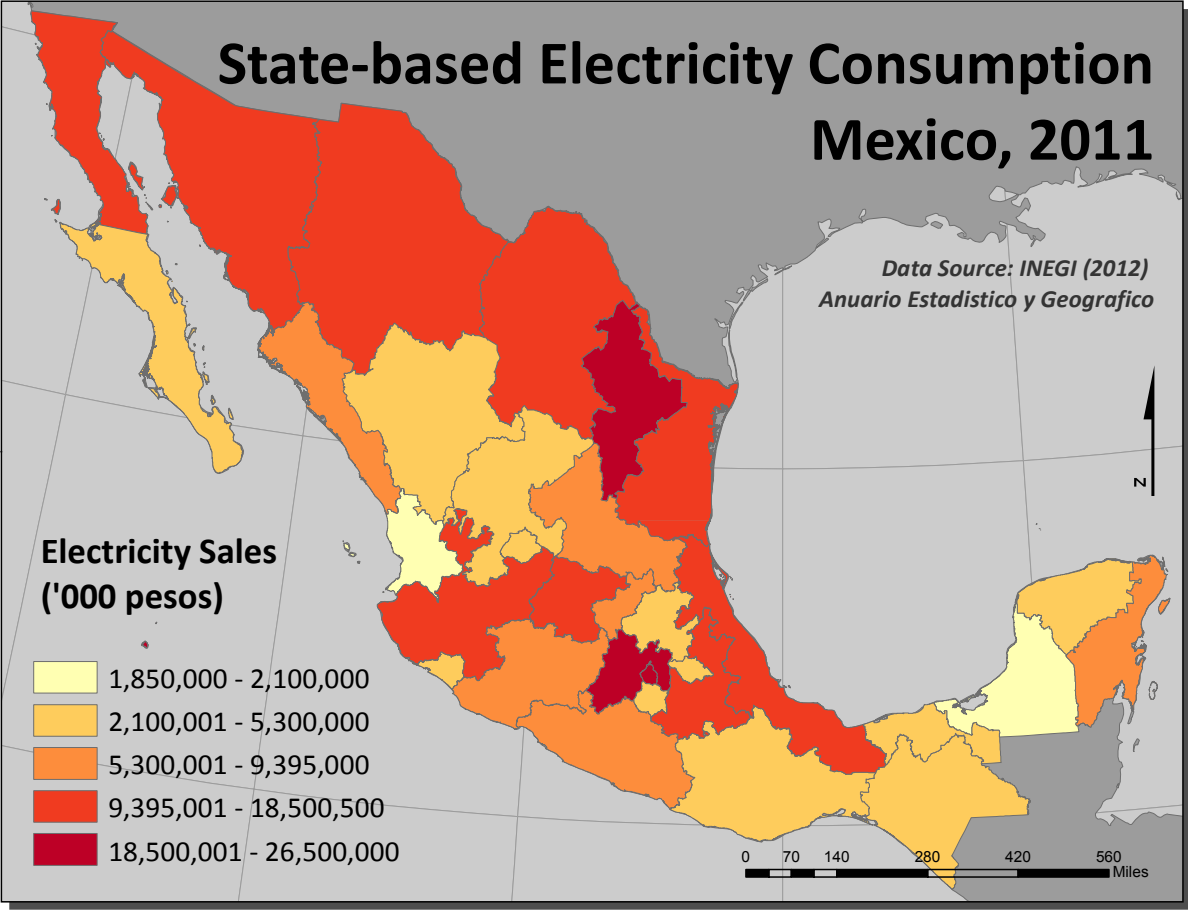


Figure 3: State-based Electricity consumption 2011 (by author)

While neoliberalization takes different guises in different contexts (Castree, 2010; Ong, 2006), it has certain signposts. On one hand, it describes “[the expansion] of opportunities for capital investment and accumulation by reworking state-market-civil society relations to allow for the stretching and deepening of commodity production, circulation and exchange” (Heynen, McCarthy, Prudham, & Robbins, 2007a, p. 10). Following Bakker this neoliberal orthodoxy implies that renewable energy development be read in two registers: political economic (“as the preservation of capitalism as a socio-economic system”) and ecological (renewable energy “as both market opportunity and strategic necessity” (2011, p. 351). It also signals a shifting of state responsibilities (and reconfigurations of state power) onto the private sector and NGOs. Such a reading *repositions* the state and incorporates, more centrally, non-state actors as key

agents in contemporary processes of socio-spatial transformation. This repositioning of actors provokes a rethinking of the mechanisms through which fragments of sovereign power are negotiated and contested, the expanded roles played by non-state actors in the management of socionatural relations and the limitations and possibilities for more equitable and just distributions of development benefits (Agnew, 1994; Dove, 2006; Emel et al., 2011; Li, 2010; Lund, 2011). Making wind legible and governable brought state and non-state actors together and, in the process, creating new fields of power through which particular actions were enabled and others constrained (see also Robertson & Wainwright, 2013; Robertson, 2006). In southern Mexico, this 'green energy transition' is being pursued through contested processes to commodify and privatize wind, to enclosure lands to fix wind infrastructure in place and enable its work-effort – surplus value – to circulate through the global economy, and the use of state-sanctioned repression of those individuals and their families who speak out against these processes.

In parallel to the political discourse on 'green energy transition' that is articulated to mitigating anthropogenic climate change, as part of the December 2013 *reforma energética*, the Mexican government plans to expand the production of crude oil and explore non-conventional fuel sources such as shale oil gas (SENER, 2012), seemingly in contradiction to the objectives of the its National Climate Change Strategy and its own national renewable energy law (see Hamister, 2012). This clear contradiction has not gone unnoticed. At a recent meeting of Environment Ministers across Latin American and the Caribbean, held in Los Cabos, Mexico, the Executive Director of United Nations Environment Program (UNEP) cautioned Mexico that the intensification of hydrocarbon exploitation under the *reforma energética* is likely to massively increase its total greenhouse gas emissions (erasing any purported benefits gained from a domestic clean energy transition, regardless of how the limited benefits are distributed nationally) (Enciso, 2014).

The discursive construction of 'green energy' development in Mexico adopts a neoliberal free market orthodoxy through which national laws and policies are used to drive private investment in the new 'green energy economy', innovation and technological expertise originate and flow from the private to public sectors (often through public-private partnerships); and, civil society provides the 'socialization' necessary to effect and sustain these changes. Yet this instrumentalization of scientific objectivity and neutrality in the case of 'green energy' suffers, as Latour (2002) and Gregory (2010) illustrate, because of its

entanglement within a neoliberal State that privileges 'consensus' and 'Science' over and above contestation and situated knowledges. This epistemic closure risks producing spaces where conflict is no longer possible and place-based struggles are erroneously framed as the cause of conflict that must be managed. By smoothing out the political, representing wind not only as an abstract or fictitious commodity that has no material basis in production, but also a 'sustainable' commodity. This produces a form of 'virtual' peace where history and politics are smoothed over. It is this dominant articulation of liberal peacebuilding with sustainable development that according to Latour (2002) represents a 'sociality yet to come', where 'difference' is flattened, where conflict occupies an historical past, and the neutrality of Science renders the world as one-dimensional. In the context of this liberal or "virtual" peace, "meaning the empty shell of a state with little relevance to the everyday lives of most of its peoples" (Richmond, 2011, p. 16), the 'sociality yet to come' is one where conflict no longer exists. In the following chapter I interrupt this narrative and highlight the contexts and violences of the seemingly benign frontier of 'green' energy extraction in southern Mexico. The benign construction of this 'green energy' frontier ignores the material and discursive dimensions of power and justice, and disguises the violence of dispossession and alienation that follow the commodification and enclosure of socionature (Bridge, 2011).

CHAPTER 4: A CAPITALIST WIND ENERGY LANDSCAPE

“Es curioso, en términos del paisaje. ¿Qué está sucediendo? Cuando yo llegue al Istmo ahí estaban ocho o diez torres. Y hasta bucólicos, pueden parecer. Están allí las torres, y el tiempo pasa. Y siguen siendo ocho torres. Pero lleguen el siglo 21 y el neoliberalismo con él. Y este resulta que estos 8 torres se van a convertir de bucólicos a invasivos elemento del paisaje. El deformante del paisaje.”

“It’s curious, in terms of the landscape. What is happening? When I arrived in the Isthmus there were eight or ten windmills. They appeared bucolic, almost. The windmills were there and time passed by. The eight windmills remained. But then the twenty-first century arrived and with it, neoliberalism. This resulted in those eight windmills transforming from something bucolic to an invasive element of the landscape. A deformity of the landscape.”

Interview 3, 18 January 2014

“Pues, ya vez, cambie la fisionomía del Istmo. Se vienen de Coatzacoalcos [in Veracruz] hay un punto que le llamamos la puerta del pacífico. Y si paras allí y veas hasta al fondo del mar, hasta que se vea el mar, toda la planicie, ahorita ya vez puros aerogeneradores. Es increíble. Y van más. Van en expansión.”

“You’ll see, they have changed the face of the Isthmus. If you come from Coatzacoalcos [in Veracruz] there is a point that we call the Pacific Gateway. If you stop there and look towards the ocean, until you can see the ocean, all the plains, all you can see today are wind turbines. It’s incredible. And more are coming. They are expanding.”

Interview 6, 22 January 2014

In this chapter, I present an environmental history of the Isthmus as a capitalist wind energy landscape and the ways in which this landscape is leading to the proliferation of direct, indirect and structural violence. The Isthmus of Tehuantepec has long been a frontier, an object of control under historically specific modes of capital expansion (Baletti, 2012). Resource geographies provide important theoretical and methodological insights that highlight the politics of peacebuilding in the contemporary context of the expansion of ‘green’ capital with and through wind. This environmental history traces the historical and geographical processes, the successive reconfigurations of land and territory, relations of production, new forms of enclosures, and shifting conceptualizations of waste/value, through which wind resources in the Isthmus came to bear capitalist value. I identify the “technical devices of measurement and visualization” (Bridge, 2013, p. 3) as well as the legal, policy and financial mechanisms through which

wind access in the Isthmus is “gained, maintained, and controlled” by private corporations (Ribot & Peluso, 2003, p. 160).

As a capitalist wind energy landscape wind is today being put to work for the benefit of predominantly private corporations. Its movement ‘effort’ is being harnessed through complex assemblages of turbines, towers, cables, transmission lines and substations. Surplus value of this ‘work’ is mobilized and embodied in fictitious commodities that are exchanged in local and global markets. In this case the commodities derived from wind appear as mega-watts (MW) and carbon-credits. Both of these commodities are exchangeable via the money form. Both of these commodities are divorced from the socionatural conditions of their production. They are also embedded in other systems of capitalism production (and therefore represent capital inputs as well as commodities (Henderson, 1998)). The capitalist energy resource landscape operates discursively and materially by demarcating specific people, places and things as valuable (and sustainable), and others as wasted (and unsustainable), obscuring “the fact that they are enmeshed in circuits of value and offer critical resources that supplement the income of the poor and marginalized” (Gidwani & Reddy, 2011, p. 1640).

4.1 A new extractive frontier

As the narrowest stretch of land, connecting the Gulf of Mexico in Veracruz with the Pacific ocean in Oaxaca, the Isthmus has been of geopolitical significance since the Conquest (López, 2012). The geopolitical significance of the Isthmus – or ‘spatial imaginary’ following Wolford (2004) – has varied as the potential and realization for the extraction of surplus value has shifted under historically specific conditions of capitalist development, and the fuzzy ethical frontier of political modernity. In the period between the conquest and the early twentieth century, López (2012) explains how the Isthmus was a strategic communication and transport node associated with the transoceanic railway of the early twentieth century (*el ferrocarril transísmico*) and the Pan-American highway. In the period after the opening of the Panama Canal in 1914 and the formal end of the Mexican Revolution the Isthmus was reimagined as an important site for export oriented agricultural trade. This wave of extractivism focused first on forestry (originating from the forested territories of the Zoque peoples in the Chimalapas region) and then, with the consolidation of the Mexican ‘developmental’ state, on agricultural intensification oriented around large-scale irrigation projects characteristic of the 1950s (López, 2012). The latest

configuration of extractivism is today centered on the need for the Mexican state, private companies and foreign investors for non fossil fuel energy sources. Understanding the contemporary configuration of capital, state and nature in the management of socionatural relations in the Isthmus is part of a broader trend in neoliberal environmental governance (Castree, 2010; Peck & Tickell, 2002). While neoliberalization takes different guises in different contexts (Castree, 2010; Ong, 2006), the environmental history of capitalist wind farming in the Isthmus is characterized by “[the expansion] of opportunities for capital investment and accumulation by reworking state-market-civil society relations to allow for the stretching and deepening of commodity production, circulation and exchange” (Heynen et al., 2007a, p. 10) as well as a shift in state responsibilities onto the private sector.

4.2 “One of the world’s best wind resources”

Today the Isthmus is typically described as “gifted with one of the world’s best wind resources” (Oceransky, 2010, p. 505). This popular representation elides critical analysis of “the political, economic and cultural processes” that were necessary to bring this representation to life (Bridge, 2011, p. 821). The naturalness of this otherwise benign and apolitical¹⁶ representation originates in the US Department of Energy’s National Renewable Energy Laboratory (NREL) publication of the wind resources atlas of Oaxaca (Elliot et al., 2003). The atlas had been in development since the mid 1990s as part of the Mexico Wind Resource Assessment Project, funded with the support of USAID as well as Mexican federal and state government institutions (Wood, Medecigo, & Romero-Hernandez, 2012). In 2003 NREL presented the results of the previous decade of collection, measurement and evaluation of Oaxaca’s wind energy potential (measured in terms of wind power density at 50m above the ground; and an estimate of installed electricity generating capacity of 5MW per square kilometer). It estimated that Oaxaca had the potential to produce 33,000MW of installed energy capacity (based on those areas, roughly 6,600 square kilometers or 7% of Oaxaca’s total land area, assessed as having ‘good’ and ‘excellent’ wind energy potential). Taking into account areas assessed only as ‘excellent’, this estimate was reduced to 6,000MW. Most of this potential is located in the Isthmus (see Figure 4, below). López (2012) remarks that this potential capacity would be sufficient to meet all the energy needs of the state of Oaxaca, a claim

¹⁶ According to Bruno Latour, the source of political ‘neutrality’ and thus the mediator or arbiter “far above all possible forms of conflict” is Nature (2002, p. 26). Nature, a modern Nature, operates as the mediator, with “its laws, Science and its unified matters of fact, Reason and its way to reach agreement” (Latour, 2002, p. 26).

arguably consistent with the stated goal of the atlas which was to “ensure that the communities in Oaxaca ultimately receive the social and economic benefits of renewable energy” (Elliot et al., 2003, p. 1).

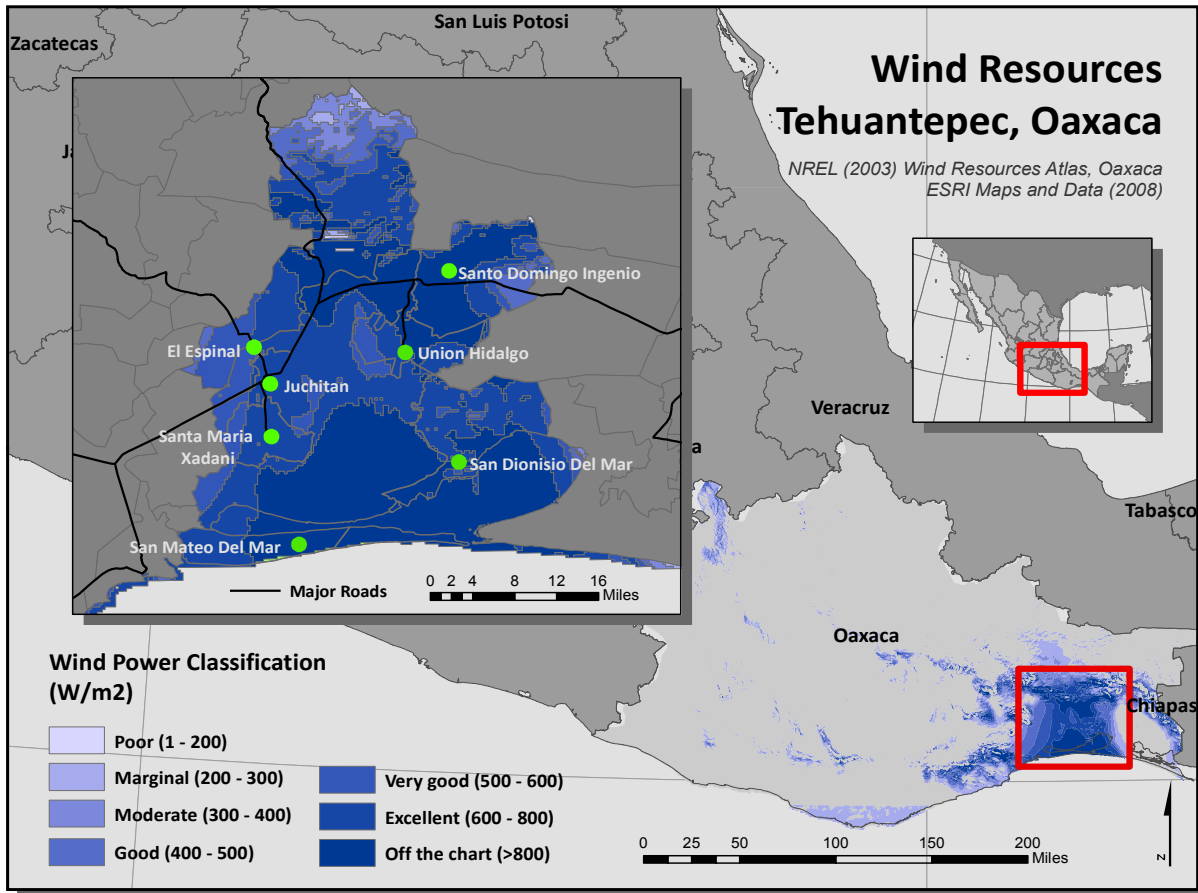


Figure 4: Wind Resources Tehuantepec, Oaxaca (by author)

The methodology used by NREL is instructive in illustrating that the ‘discovery’ of this gift was divorced from the histories and social geographies ‘on the ground’:

NREL’s advanced wind mapping methodology integrates terrain and climatic data sets, GIS technology, and analytical and computational techniques. The meteorological data sources include surface and upper-air data taken from measurement stations, ocean surface winds derived from satellite measurements, and model-derived estimates. Mesoscale model data from TrueWind Solutions (an NREL subcontractor) were used for initial estimates of the wind power in Oaxaca. The initial estimates in certain regions of Oaxaca were adjusted after NREL’s extensive evaluation of the available data sets (including measurement data collected at prospective wind development sites). The major adjusted regions were enhanced or accelerated wind flow areas in some mountainous regions of Oaxaca, parts of the Isthmus of Tehuantepec region, and the south central coastal area near Bahias de Huatulco and Puerto Escondido. (Elliot et al., 2003, p. vi)

I use the concepts of 'economy' and 'territory' to explain the historical and geographical processes through which the Mexican and Oaxacan governments, in collaboration with non-state actors like USAID, US Department of Energy, and the industry lobby group Mexican Association for the Development of Wind Energy (AMDEE, using its Spanish acronym), have used science, law and neoliberal environmental policy to render wind legible and governable and facilitate and incentivize private investment in order to put it to work for the benefit of economic growth (Emel et al., 2011). Following the re-presentation in the Atlas of the Isthmus as a strategic wind energy corridor, the winds that flow across the region, that are products of air pressure differential between the Gulf and Pacific oceans that accelerate as air is funneled through the mountains to the north of Juchitán, were reimagined as potentially valuable commodities. Hidden behind the neutral façade of the Atlas we can identify the political encounters¹⁷ between the state, private companies, international institutions, engineers and scientists (experts) and local 'elites. Through a series of ostensibly public colloquiums organized in 2000, 2001, 2002 and 2003, international development experts, government officials, industry representatives, and wind energy experts wind industry representatives met with the Mexican and Oaxacan governments to identify the financial and technical barriers that were stymying private investment in wind (de Buen, 2010). In a remarkable moment of political erasure, Oceransky (2010) describes how colloquium participants produced Figure 5, below, that demarcated the Isthmus' wind resources as a way to avoid competition between competing companies. The map is problematic not only because it fails to acknowledge the existing territories of different indigenous peoples (see Figure 6, below) whose lands are required in order to capture wind, but also because it maps them out from the reality of wind represented in state representational practices. Maps are propositions that use conventions of cartographic representation to say: "this exists here" (Krygier & Wood, 2009). This map proposes that the southern Isthmus is an empty and wasted space, empty of the people who inhabit these places (with their wasted habits and desires). The proposition of 'emptiness' is then claimed (and transformed into value) through the anticipated productive work (investment) of the relevant, predominately Spanish, wind companies that are given something akin to exploration rights. By erasing them, this map reproduces the historic and relational patterns of violence that have, since the Conquest, sought to expropriate Indigenous peoples from their lands and livelihoods.

¹⁷ Bakker suggests that these encounters are characteristic of the "scale hopping politics of resource use and sustainable development" (1999, p. 226).

Below, I describe the spatial practices of the Mexican state and NGOs through which this erasure became possible.



Figure 5: Staking claims to the Isthmus' wind (Oceransky, 2010, p. 514)



Figure 6: Indigenous peoples' territories, Isthmus of Tehuantepec (Boege, 2008, p. 79)

4.3 Making wind legible and governable

Political space opened up for scientists and activists to investigate non-fossil fuel energy production systems in the 1970s, with the emerging 'consciousness' of global environmental change and the articulation of sustainable development in the publication of *Our Common Future* (World Commission on Environment and Development., 1987). In Mexico, the first anemometrical devices to measure the velocity, intensity and variability of the north-south winds flowing across the Isthmus were installed by the Mexican electricity regulator, the *Comisión Federal de Electricidad* (CFE), in 1986 (Cadenas & Saldívar, 2007). After almost a decade evaluating the wind potential, the first wind farm, *La Venta I*, commenced operation in 1994. A pilot farm of seven turbines, with the combined capacity to generate 2MW of electricity, *La Venta I* was located in the ejido of La Venta, municipality of Juchitán and operated by CFE. Although these anemometrical devices and the pilot farm provided the scientific data used in the Atlas to render wind legible, law and neoliberal environmental policy reforms were necessary to govern the wind and facilitate and incentivize private investment in order to put it to work for the benefit of economic growth (Emel et al., 2011). In 1992 the Salinas government introduced two key legal reforms that were

necessary for this process. Both of these reforms were tied to Mexico's 'structural adjustment' that followed the oil crisis of the 1980s and that paved the way for NAFTA.

First, article 27 of the Mexican Constitution was amended to eliminate the protection that prevented ejidal lands – forms of social property that had been redistributed following the Mexican revolution – from being sold or confiscated (Reyes & Kaufman, 2011). At this time ejidal lands represented roughly half the total landmass of Mexico. Following this reform the government program PROCEDE – an administrative body empowered to 'register' social property as individual property in the name of 'development' – would privatize "28,790 agrarian units in the country, equivalent to 92.24 percent of the total social property" (Reyes & Kaufman, 2011, p. 518). Reyes & Kaufman explain that PROCEDE was more than simply an example of regressive land reform "with particularly devastating consequences for indigenous peoples": it represented "a respatialization of social control" (2011, p. 518). This respatialization they suggest, with specific reference to the exercise of social powers in Zapatista autonomous territories in Chiapas, triggers the production of both the "calculable space" necessary for neoliberal governance as well as an agonistic space that fostered "the creation, sustenance, and growth of a self-organized collective subject" (Reyes & Kaufman, 2011, p. 519). The legacies of PROCEDE have produced a complex terrain of uncertain land tenures, with largely devastating consequences. Wind developers have been able to exploit the uncertainties to their advantage (negotiating one-sided land access contracts with individual, small scale land holders, who are often unable to read the contracts). In one instance however, *comuneros* and *comuneras* from Unión Hidalgo, Juchitán were able to influence wind developers to annul almost 200 individual contracts by alleging that the lands were, in fact, part of the ejido of Juchitán and were not individually titled (López, 2012 and Interview 6, 22 January 2014; Interview 8, 24 January 2014).

Second, in 1992 the Salinas government introduced the *Ley del Servicio Público de Energía Eléctrica* to enable private participation in Mexico's electricity system. Prior to this reform, the generation, transmission and provision of electricity for public use were, according to the Mexican Constitution, the sole responsibility of the state (and also required the state to produce electricity at the lowest cost possible). After 1992 private companies could invest in the production of electricity for their own (or state) needs and connect their energy generating projects to the national electricity system via the new modalities of self-supply, cogeneration, independent production and small-scale production. Wood et al

(2012) describe this reform, which permitted private access to Mexico's electricity system, as the most important extra-economic exercise of state power to facilitate private investment in Mexico's renewable energy sector. The self-supply modality is the most widely used in relation to private wind energy production in southern Mexico today. This modality allows private consumers (who must also be investors in the projects) to purchase 'green' electricity directly from wind farm operators (Hamister, 2012). Any surplus electricity must be sold to CFE. Under independent production private companies own the infrastructure and sell the electricity to CFE who distribute it through the national grid. The use of this modality in the context of wind energy production in the Isthmus has been limited because private companies must respond to tenders for new energy nodes issued by CFE. These tenders are restricted by Federal government budgetary considerations. Oceransky (n.d.) describes how the first Global Environment Facility (GEF) supported tender failed because all proposals exceeded the available budget.

Notwithstanding these legal reforms wind industry representatives signaled to the Mexican government that significant technical and financial barriers remained, barriers that were effectively stymying private investment (de Buen, 2010). At a national scale, action plans to eliminate barriers to large-scale wind energy development were published with support from the UNDP and USAID (de Buen, 2010). Guides for the construction and operation of renewable energy projects were released (CONAE, 2005). Tax incentives were introduced, permitting renewable energy companies to deduct the full cost of machinery and maintenance for the first year of operation (Borja, 2004). In 2007, with assistance from the Global Environment Facility (GEF) of the World Bank, CFE introduced a subsidy program for large-scale projects (greater than 100MW). This subsidy program was facilitated via the independent production tender process. Under the *Large-scale Renewable Energy Development Project* (PERGE, for its Spanish acronyms), private companies submit tenders to CFE to develop projects that will supply CFE for a fixed period of time (twenty years). Financial and administrative support for the Electrical Research Institute (IIE), a research and public outreach group within the Federal Energy department (SENER), increased. In 2008 the IIE opened a Regional Center for Wind Technologies in the Isthmus that hosts a demonstration wind turbine (SENER, 2009).

Even with the *Ley del Servicio Público de Energía Eléctrica* and the subsequent financial and public outreach of the IIE, the principal technical barrier, colloquium participants argued, related to the actual

availability of electricity transmission infrastructure that was needed to connect private wind farms to the Mexican electricity grid (Wood et al., 2012). The Isthmus, although 'gifted' in terms of bountiful wind and political supported by government, was poorly serviced in terms of the substations and transmission lines. *Temporadas abiertas* (open-seasons) became a policy tool used to estimate future demand for new transmission lines and electricity transfer substations. This policy tool is described by the Woodrow Wilson Center as an 'effective' way to coordinate private interests (those companies proposing to develop renewable energy projects) and public resources (the CFE and the CRE who are responsible for constructing transmission infrastructure) to overcome the barriers private companies face in accessing the national electricity grid (Wood et al., 2012). Consistent with broader processes of neoliberalization, electricity infrastructure provision in Mexico was reprioritized to meet the demands of the 'market' and not the needs of the public (Interview 3, 18 January 2014).

The market in 'green' electricity today extends beyond Mexico's borders. The 'future' wind corridor of Tehuantepec was included as part of the Plan Puebla-Panamá (PPP) (renamed Plan Mesoamericana) a regional integrated development vision used to coordinate and finance large-scale infrastructures that would connect key mineral and energy nodes across Central America with urban centers and export hubs. This plan has been critiqued as a illustration of the socio-spatial transformation of space for the purposes of the production and circulation of global capital (Wilson, 2011a, 2013). Applying Lefebvre's theory of the politics of space, Wilson argues that the PPP is emblematic of neoliberal state spatial planning, a practice represented as economically pragmatic (and therefore apolitical and ahistorical), that produces an abstract space that is "characterized by the commodification of social relations, the extension of state power, and the corresponding evisceration of creative autonomy from the realm of lived experiences" (Wilson, 2011b, p. 71). Although the PPP was officially abandoned in 2008, its spatial legacies continue through individual development projects and less publicly 'ambitious' regional integration plans¹⁸. Currently, interest in newly 'discovered' wind resources¹⁹ in proximity to the US-Mexico border suggest an emerging market for 'green' electricity exports to the US (particularly California,

¹⁸ For example, one interviewee suggested that the wind energy extracted from the Isthmus will eventually be sold to Guatemala as part of the *Sistema de Interconexión Eléctrica para América Central* (SIEPAC), funded, in part, by the Interamerican Development Bank. See <http://www.proyectomesoamerica.org/>

¹⁹ Today new wind farms are being developed beyond Oaxaca, with projects planned in Baja California Sur, Nuevo León, Tamaulipas and San Luis Potosí.

which requires a minimum mix of renewable energy under the renewable portfolio standard (Wood et al., 2012; Wood, 2010). Place-based struggles contest these forms of neoliberal spatial planning alerting us to these projects' consistent failures to deliver the promised social gains.

Domestic law and fiscal policy reforms alone were not sufficient to generate the political-economic conditions necessary to incentivize capitalist wind farming in Mexico. The problem is that electricity generation from renewable energies remains relatively expensive in comparison to fossil-fuel generation. Lokey²⁰ (2009) explains that the Clean Development Mechanism (CDM) of the Kyoto Protocol²¹ has provided a large part of the missing financial incentives in Mexico, as in other 'eligible' countries. CDM supports the implementation of greenhouse gas reduction projects in the global South. Registered projects generate tradable carbon credits that northern countries can use to comply with their Kyoto commitments (Lema & Lema, 2013). These carbon credits can be used to offset domestic emissions or be sold in carbon markets. Of the seventeen large-scale wind farms have been constructed across the southern Isthmus since 2006, fifteen of these farms are registered under the CDM. Following Bridge (2013) the politics of CDM involve complex articulations between foreign and non-state control over land and territory in the Isthmus. The 'scale-hopping politics' of overlapping sovereign control operates on the basis that capitalist wind farming would *not* be possible without the financial incentives produced through CDM and legal apparatuses of carbon markets in Europe or Australia, for example.

It was not until 2006 that CFE commenced operating the first large-scale wind farm, *La Venta II*. Since then, expansion has accelerated. Today there are eighteen large-scale wind farms operating in the Isthmus. Of these the state-owned CFE operates two (La Venta II and III). Four private projects supply electricity to CFE through the independent production modality (Oaxaca I, II, III and IV). The remaining twelve farms generate electricity wholly for private consumers such as retailer Wal-Mart Mexico, baking company Grupo Bimbo, beverage manufacturer Femsac Coca-Cola (who also own and operate Mexico's largest chain convenience store, Oxxo), cement producer and building supplier CEMEX, and the world's

²⁰ Lokey's CDM guide for Latin America is a classic example of the uncritical adoption of the neoliberal ideology that is palpable in the technocratic implementation of 'sound environmental management' practices today. She argues, "For successful renewable energy CDM project registration and emission reduction issuance into the future, the project must overcome a variety of political, economic, social and technical barriers" (Lokey, 2009, p. ix).

²¹ Linked to the United Nations Framework Convention on Climate Change (1992).

largest producer of silver and Latin America's largest producer of gold, lead and zinc, Met-Mex Peñoles²². Combined they have the capacity to generate roughly 1,500 MW of energy, with permits issued for the construction of an additional 1,000MW (CFE, 2012). This represents more than a six hundred percent increase in installed capacity since 2006 (Wood et al., 2012). The actual configuration of the predominantly private wind farming calls into question the stated goal of the Wind Resources Atlas to provide social and economic benefits to the local communities in Oaxaca. While Wood et al (2012) suggest there are significant social benefits in terms of local job opportunities through wind energy development, Harris' (2010) description of a rapidly transnationalizing and capitalist oriented international wind energy sector, where eleven transnational corporations (representing firms in Denmark, Germany, Spain, China, India and the US) control 95% of the wind turbine manufacturing market, suggests that these promises may be exaggerated at best. Manufacturing, Harris (2010) argues, is critical to the international political economy of wind energy because the size and complexity of turbine technologies – their very materiality (T. Mitchell, 2011) – means that a few transnational corporations build, install, service and maintain wind farms across the globe with very few 'local' workers necessary beyond the construction phase. It was unsurprising (although still deeply troubling), that when I was in Juchitán in July 2013, a security guard at one of the newly opened private wind farms explained that it was operated and monitored remotely from an office in Madrid. Whether or not this is correct is not the point; it signals a perception that the control of the farms is abstracted from the realities of life in the Isthmus.

4.4 It's waste that makes capitalist value possible

Making wind legible transformed socio-natural relations across the Isthmus and produced a capitalist wind energy landscape. The emergent energy resource landscape operates discursively and materially by demarcating specific people, places and things as valuable (and sustainable), and others as wasted (and unsustainable). In their examination of urban transformations in metropolitan India, Gidwani & Reddy theorize that "waste is the political other of capitalist value, repeated with difference as part of capital's spatial histories of surplus accumulation" (2011, p. 1625). Drawing on the liberal political theory of John Locke, they examine how waste describes the "things, places and lives that are cast outside the pale of value" (Gidwani & Reddy, 2011, p. 1625). It designates the "unenclosed common, the external frontier,

²² For an environmental justice analysis of Met-Mex Peñoles see Díez & Rodríguez (2008).

the ethical horizon of civil society” (Gidwani & Reddy, 2011, p. 1626). Waste suggests not only a normative concept but also a material distancing between capital and those people, places and things it exploits. Representing “the constitutive outside of political modernity” (Gidwani & Reddy, 2011, p. 1628) conscious work must be done to transform wind “into value by dint of human labor and colonial stewardship” (Gidwani & Reddy, 2011, p. 1630). This work is legitimized as necessary from the standpoint of the natural progression of modernity, where in the case of the Isthmus the bountiful wind represents an “untapped potential [passively] awaiting transformation” (Gidwani & Reddy, 2011, p. 1630), insulating the actors involved from ethical responsibility for the necessary violence that accompanies this transformation.

As the body representing wind energy companies in the Mexico, AMDEE consistently described agriculture in the Isthmus as unproductive and have framed opposition to wind farming in the Isthmus as minor, isolated, driven by ‘external agitators’ whose motives are ‘unacceptably’ political (Oceransky, n.d.). According to the IADB Environment and Social Strategy for the San Dionisio project, “Cattle grazing activities, while present in the Project’s area of influence are not very productive due to the soil conditions (high level of salinity) and the absence of favorable vegetation” (IADB, n.d., p. 3). This discursive construction simultaneously infers that their work (being the self-described ‘benevolent’ promotion of renewable energy) is widely accepted, is based on scientific and objective ‘facts’, is apolitical and therefore uncontested; while the demands and claims of local peoples are irrational, and local agricultural systems deemed ‘wasteful’. It is not only land that is represented as wasted and degraded; the labor of Istemeños is represented as ‘destructive’ and ‘primitive’. Again, the IADB Environmental and Social Management Report for the San Dionisio project declared that “[b]oth sites have been severely affected by anthropogenic activity such as urbanization, agriculture, small-scale salt extraction and cattle grazing” (IADB, 2011, p. 6). “As mentioned previously, both wind farm sites have been exposed to intense human activities in the past decades which have led to a deterioration of the “naturalness” character of the area” (IADB, 2011, p. 10). “Habitat loss, fragmentation, overhunting and poaching (for sports and for subsistence by resident people), uncontrolled human-induced fires to increase growth of green forage for cattle, and predation (coyotes but also feral dogs introduced by human settlement) over the years has restricted this species [IUCN Red Listed Tehuantepec Jackrabbit] to four isolated habitat patches” (IADB,

2011, p. 11). “Overexploitation and the lack of technical expertise to develop aquaculture as a livelihood alternative are affecting the main source of income of these fishing communities” (IADB, 2011, p. 14).

These representations of agriculture in the Isthmus are contested. Local activists have consistently said that their bio-cultural systems are not recognized or valued. The *Asamblea de los Pueblos Indígenas en Defensa de la Tierra y el Territorio del Istmo* (APIDTTI), for example, has argued that *comuneros* and *comuneras* across the Isthmus proudly produce up to three harvests per year in the irrigated lands and two in the non-irrigated lands (Oceransky, 2010, p. 507). In the days I spent with Zapotec fishermen and farmers in Álvaro Obregón, they explained the ways their daily practices were shaped by the wind. From the Barra, when the strong North winds blow, they can set their nets from the beach. When the wind shifts and mellows, they can launch their boats. Across the southern Isthmus they cultivate the *zapalote chico* (*xhuuba huinii*). *Zapalote chico* is a variety of corn that remains a staple today and that can withstand winds over 100km per hour, winds that are common in the Isthmus.

The neoliberal environmental governance of wind in Mexico has been a key driver of conflict in the Isthmus. This approach privileges ‘neutrality’ and ‘efficiency’ in relation to the proper management of socionatural relations – including conflictual relations (Mac Ginty, 2012). Technocratic interventions to make wind legible and governable privilege expert knowledge; produce standardized best-practice models, and attempt to mainstream neoliberal norms and values. As the historical transformations of the geopolitical and economic significance of the Isthmus illustrate, value is not static, but flexible, elastic, signifying the changing economic demands of capital accumulation and the normative demands of ‘civil society’. Today, demands for clean energy resources are articulated with the global discourse of ‘green economy’. The following chapter explores these political consequences of framing capitalist wind energy as ‘sustainable’. Within this discourse, sustainability, like value for Gidwani & Reddy (2011), becomes articulated with its political other: unsustainability.

CHAPTER 5: INTERRUPTING 'GREEN ENERGY' IN SOUTHERN MEXICO



Figure 7: Tierra y Libertad (Anon.), Casa de las Culturas, Juchitán (Photo by author)

This mural was hanging on display in the Casa de las Culturas in Juchitán when I visited in July 2013. It depicts some of the ways in which historical struggles – the ‘sedimented histories’ – continue to play out in the contemporary moment. We can see the depiction of the railway – developed in the early twentieth century to (re)position the Isthmus as a transport/communication node. It symbolizes the normative ‘progression of modernity’ into ‘wastelands’ organized around irrationality and mythology. Emiliano Zapata rides in parallel to the railways – reminding us of the (unfulfilled) promises of the Mexican revolution. The train is, after all, delivering a piece of paper, perhaps a ‘land title’, to recognize (and

protect) the collective lands of Indigenous Istmeños. The banner – *tierra y libertad*; land and freedom – is more prominent than the Mexican flag, suggesting that Istmeño politics are forged through an agrarian rather than national identity. We see the presence of corn. So too, is the *tulipán* that is still embroidered into the colorful *faldas* of Istmeñas. The Istmeñas are carrying guns and children, symbolizing women's positions at the center of long histories of armed struggle in this region.

In this chapter, I examine how increasingly radical forms of indigenous political resistance have interrupted the expansion of capitalist wind farming across the Isthmus. This chapter has two objectives. First, I seek to show how contemporary place-based struggles against capitalist wind farming, although they are uneven, continue Zapotec and Iktoots peoples' historical struggles for political autonomy and collective self-determination. Second, I seek to show that as indigenous tactics of resistance have become increasingly political, signaling a re-politicization of indigenous peoples' subjectivities, state sanctioned repression has also increased. I argue that by attempting to erase possibilities for everyday political practices, state sanctioned repression operates not only as direct violence in the short term but also as a form of structural (long term, slow) violence that is constitutive of climate capitalism more broadly.

I begin by situating contemporary place-based struggles against state and corporate control of wind farming in historical context and argue that these struggles continue the political struggles of indigenous peoples across southern Mexico for recognition and political autonomy in contexts of ongoing injustices. This provides the link to the previous chapters in this thesis by illustrating that contemporary socioenvironmental conflicts involving wind farming are political struggles that are socially produced through successive reconfigurations of territory (relations of production, new forms of enclosures, and shifting conceptualizations of 'value' and 'waste') and political subjectivities (along class, gender or ethnic lines). I then trace the ways in which Zapotec and Iktoots peoples' tactics to interrupt wind farming have changed over time. I rely upon secondary documents (such as media reporting, press releases) and interviews with social movement leaders and NGO workers, to illustrate these changes. In this narrative I highlight the ways in which NGOs have provided assistance to indigenous struggles, as well as the tensions these encounters have produced. I close this chapter with an analysis of the current forms of radical political resistance practiced by the community of Álvaro Obregón. I argue that the recent

increase in state sanctioned repression to which this community is being exposed illustrates how attempts to erase possibilities for everyday political practices operate not only as direct violence in the short term but also as a form of structural (long term, slow) violence that is constitutive of climate capitalism more broadly, and the 'virtual' peace of Mexico's frontier of 'green capital'.

The purpose behind tracing these tactical changes is threefold. First, I seek to problematize the authenticity of the changes promised by the 'green economy'. Like other peace movements, or anti-violence movements (Loyd, 2012), I seek to show how the struggles of Zapotec and Ikwjoots peoples signal the political ecological conditions of oppression that are caused by the 'deepening and widening' of capitalist relations of production, circulation and accumulation in the Isthmus. Second, I seek to show that the increasingly radical political nature of their tactics signals a re-politicization of indigenous peoples' subjectivities. This argument builds upon López's conclusion that indigenous resistances in the Isthmus have "generated spaces of articulation at the regional level in order to establish political alliances between social organizations, communities and indigenous peoples to strength their demands, as well as [being characterized by a] preoccupation with the defense of natural resources and the environment and the link between indigenous and environmental rights" (2012, p. 128). Third, in light of this re-politicization of indigenous identities I seek to show that the technical support provided by NGOs, particularly in terms of information gathering and legal representation, although important, has been superseded by indigenous led efforts to strengthen their internal cohesion and performance of their alternative development visions.

5.1 Sedimented histories of indigenous political struggles

Although the socio-spatial reconfiguration of the Isthmus for the purposes of 'clean' energy production takes place in the context of regimes of neoliberal governance and territorialization, contemporary place-based struggles against state and corporate control of wind farming can be understood as part of ongoing political struggles of indigenous peoples across southern Mexico in defense of land and territory in contexts of historical injustices (Binford, 1985; Campbell, 1993, 2001; López, 2012; Rubin, 1994, 1997). Following Barabas & Bartolomé (1986), López (2012) argues that histories of armed struggle during the twentieth century (and particular in the post-revolutionary period) against attempts to privatize land for the purposes of industrial projects of modernization (including export agriculture and shrimp aquaculture), produced a politicization of indigenous identities in Tehuantepec.

Binford (1985) describes how efforts to reconfigure land access, control and ownership have been a source of social conflict in the Isthmus since as early as the 1950s. Land tenure reforms precipitated forms of political organizing that were a response to the social and economic effects of these transformations. Emblematically, the Benito Juarez dam and irrigation project (first planned in the late 1950s and commenced operating in 1962), she argues, produced two significant political-economic and social changes in the Isthmus. First, it opened up semi-arid lands in the southern Isthmus to year-round cultivation. She argues that this enabled land to become a valuable commodity, given its previous low-productivity.

“Though pre-irrigation land tenancy had developed a fundamentally individualized form, the contribution of land to accumulation was limited by its exploitation through non-capitalist relations of production. With the construction of the irrigation infrastructure, however, it acquired a new sort of value” (Binford, 1985, p. 195)

Second, land speculation, concentration of land and unequal access to capital, along with population increase, led to an increase in the number of landless agricultural workers in the Isthmus. These workers became an important constituency for COCEI – a coalition of students, workers and indigenous people that became the first leftist government in post-revolutionary Mexico to win local government elections in Juchitán, defeating the PRI in 1983. Her argument is that COCEI was effective because it went far beyond “the tenure issue to address itself to many of the *other* needs of the small producers – needs for credit at reasonable terms, fair prices for products, honest administrators, etc., not to mention more schools, paved streets and markets” (Binford, 1985, p. 197). Indigenous movement leaders interviewed for this research project explained that support for COCEI has faltered (Interview 3, 18 January 2014; Interview 6, 22 January 2014; Interview 7, 24 January 2014). They explained that in recent years, COCEI has been ‘coopted’ by economically and politically powerful elites. COCEI, they say, is now more interested in consolidating its formal political position (*vis-à-vis* the state) than representing local peoples’ needs. One participant described how COCEI had urged its ejidal members to rent their lands to the ‘brokers’, failing to explain the actual impacts this would have – a move described by this participant as ‘betrayal’ – this same participant described a similar ‘betrayal’ by the Catholic church) (Interview 6, 22 January 2014). In July 2013 while visiting the Isthmus, I walked past the COCEI office in Juchitán. It appeared abandoned - with its boarded up windows and fading paintwork.

Consistent with the current wave of capitalist expansion in the Isthmus, according to Binford (1985) the Benito Juarez dam project precipitated land reform processes that, although incomplete, produced ambiguity and irregularities in terms of access, control and ownership of lands. She highlights an important distinction between ejidal and communal lands. Ejidal lands, the “expropriated properties of the grand haciendas ... that were returned to local peoples” following the Mexican revolution (Binford, 1985, p. 180), represent roughly 51% of the Mexican landmass and are governed as usufruct (but remain the property of the state). Communal lands on the other hand, represent 5% of land nationally (but 38% of land in Oaxaca (Binford, 1985)), and remain the property of the community, who collectively determine its distribution and use. Thus, the distinction between ejidal lands and communal lands becomes important in terms of who has authority to decide how land access is determined and the relationship between local authorities and the Mexican state. These ambiguities continue today in relation to agreements made to lease lands to wind energy companies.

Disputes over land access provided the initial ‘trigger’ for local forms of resistance. In 1999 a group of *ejidatarios* from *La Venta*, the site of the first wind farm, managed and operated by the CFE, began public protests against the low prices they were being paid for access to their lands as well as for the failures on behalf of the CFE to deliver the promised public infrastructure projects (Jiménez-Maya, 2011). According to Jiménez-Maya (2011) *ejidatarios* were being paid between 50 and 100 pesos per hectare per year. The government of Oaxaca responded by arresting protesters.

As wind farming moved into regions where land tenures were uncertain tensions increased. A Zapotec lawyer explained how tensions within and between the communities of San Mateo del Mar and Santa Maria del Mar escalated with the arrival of the San Dioniso project. Land tenure along the coast, particularly around the Barra and the communities of San Dionisio del Mar, San Mateo del Mar and Santa Maria del Mar remain unsettled, with claims to territory that did not align with the formal demarcation of the two ejidos. San Mateo del Mar he explained, has refused to accept the legal demarcation of lands. They say, “this is our territory, all of this is our territory”. The presence of the wind farm exacerbated these existing tensions. According to this interview, “the companies said, “it may well be your territory, however we are going to lease ejidal land from the Comisariado of Santa Maria del Mar. We will contract with them and build our project.” Again, the deep distrust of the government is clear. “For this reason the

state has never wanted to give judicial certainty to San Mateo del Mar. If you don't know whose land it is, well, it's easier for someone to expropriate it from you, it's easier for someone to take it from you" (Interview 6, 22 January 2014). In response, the community of San Mateo decided to block access to what they claimed was their territory. This led to a violent confrontation between San Mateo del Mar and Santa María del Mar. Eleven campesinos were seriously injured. The violence between San Mateo del Mar and Santa María del Mar exemplifies how violence is caused by the absence or impossibility of means to conflict (A. Mitchell, 2011).

Jeffery Rubin's (1994, 1997) work provides an important contribution in terms of understanding the formation of indigenous political subjectivities in the Isthmus today. It also stands out for its analytical focus on peasant identities (in contrast to indigenous identities) in social mobilization (Edelman, 2001). Rubin rejected corporatism as a political theory that adequately explains the history of politics and power in Juchitán. Focusing on key moments in post-revolutionary Mexican politics, he describes how "an uneven and incomplete state presence, as well as forms of elite control and popular resistance, were forged amidst regional conflicts – and subsequently challenged and re-formed – that best explains the course of both regional and national politics" (Rubin, 1994, p. 11). He argues that "the centrality of conflict throughout the century and the ongoing tension between regional and national projects" provides the context through which to understand "changing configurations of class and ethnicity, gender and sexuality, inter-elite conflict, and popular resistance in each decade since the revolution" in order to highlight "the connections between successive configurations of power and resistance" (Rubin, 1994, p. 116). Thus, he fuses axes of resource mobilization and identity orientation theories of social movements, which Escobar & Alvarez (1992) argue are necessary to take account of the epistemological complexity of collective action that "cross social and economic categories and, occur in particular, shifting, political and cultural contexts".

In Mexico, corporatism has shaped understandings of the dominance of the PRI from the 1930s to the late 1960s. Moreover, caciquismo (local forms of rule by authoritarian local elites) is seen as fitting with this understanding of centralized power and politics. The basis for corporatist explanations of the rise of contemporary social movements is based on an understanding of post-revolutionary Mexican politics that understood the state as an "all-encompassing or hegemonic" (Rubin, 1994, p.114) entity that

was able to successfully structure and “subsume” (Rubin, 1994, p.115) local interests and, thereby, diminish forms of resistance or opposition. In challenging this dominant understanding, Rubin argues that both “corporatist structuring of interests was not the predominant form of politics in Juchitán, and caciquismo there was distinct from corporatism” (1994, p.116). Rubin explains that the dominant explanation for the emergence of grassroots social mobilizations in the Isthmus in the late 1960s is based on two premises: economic pressure and the breakdown in “centralized political control” (1994, p. 113). Relevantly, Rubin makes it clear that he does not accept mainstream accounts that suggest “nothing happened” during post-revolutionary caciquismo of General Charis (that extended from the 1930s to the early 1960s). His research reveals that “Charis was challenged almost immediately by local and state-level reformers, with his tenure as regional boss marked not only by intrigue, murder, and a mixture of protection and exploitation of peasants, but by stormy, public political battles – often centered on elections – between two opposing elite camps with conflicting visions of present and future political and economic life” (1994, p.118). Yet Charis’ caciquismo continues to be present in Álvaro Obregón, where indigenous social movements have curiously adopted Charis as a symbol of their political resistance. Community members, for example, invoke the memories of General Charis and the (unfulfilled) promises of the Mexican revolution in their struggle against large-scale wind projects. General Charis’ face was painted on the wall the old hacienda, Charis’ hacienda, where Maria and I sat in conversation with local residents. Today the hacienda is a blockade and the *policia comunitaria* carry Charis’ name. Although in life Charis was a problematic figure, according to Rubin, he guaranteed (at least temporarily) “the sort of economic and political autonomy for which they [Juchitecos/Istmefios] had repeatedly rebelled” (Rubin, 1994, pp. 117–118). His reappearance as a political symbol around which resistance to large-scale wind farming is mobilized can be understood, then, in terms of the continuities of indigenous struggles across southern Mexico for political and territorial autonomy (see also Smith, 2012).

An ‘uneven state presence’, ongoing ‘caciquismo’ and ‘popular resistance’ shape political mobilizations against wind farming today. In the Isthmus, as in other parts of Mexico, there remains today a deep distrust towards the Mexican state. Although significant efforts have been made to improve government accountability, as one NGO worker remarked, “we know that Mexico is a country with a series of structural deficiencies, and this implies impunity and corruption” (Interview 8, 24 January 2014).

Further, the local activists interviewed perceive their territories as autonomous from the Mexican state. One farmer in Álvaro Obregón, describing his community's rights to territorial control, casually explained that this right was legally protected by the International Labor Organizations convention on Indigenous and Tribal Peoples' rights (ILO169, 1989) and the 2007 United Nations Declaration on the Rights of Indigenous Peoples. These international legal instruments, they understand, recognize their historical and continuous rights to veto development projects sponsored by the state. That is, they say, the right to 'free, prior and informed consent' implies the right to veto (even though the international legal jurisprudence on this issue is unclear²³ and, in the case of the UN Declaration, is not 'legally' binding, although it has significant political and moral authority).

Caciquismo initially appeared to work to the advantage of wind farm developers through their political and financial abilities to influence local leaders. These local leaders either were able to ensure the agrarian bodies responsible for ejidal lands (*comisariados*) formally approved land access contracts or, in cases where lands had been individually titled, were able to assuage land holders concerns and promote the projects seemingly fictitious benefits. However, this trust in 'official' representatives appears to have been replaced with deep suspicion. A Zapotec lawyer I interviewed (Interview 6, 22 January 2014) remarked that COCEI could have stopped the Plan Puebla Panama (or at least slowed it down). His anger towards the COCEI is ever present in the interview.

"To the municipal authorities who governed Juchitán, along with other municipalities in the Isthmus, we demanded and we told them, you have the information and it is your obligation to inform, truthfully, what are your planes? Unfortunately, the COCEI didn't buy into this. They were corrupt".

When they asked the government about whether wind farming was part of the Plan the government replied "No, no, La Venta I is an experimental farm no more", "In reality, the wind here is not valuable, is not viable".

Álvaro Obregón is an important example. Collectively the community has decided to explicitly reject the authority of all local government leaders and any and all political parties. They say that their capacity

²³ See the decision of the Interamerican Court of Human Rights in *Saramaka v Suriname* (judgment of 28 November 2007). UN Special Rapporteur on the Rights of Indigenous Peoples, James Anaya makes the point clearly, "The Inter-American Court of Human Rights has pointed out that indigenous peoples' proprietary interests in land and resources, while being protected by the ACHR, *are subject to limitations* by the State, but only those limitations that meet criteria of necessity and proportionality in relation to a valid objective" (2013, p. 11 my emphasis). Factors relevant to assessing proportionality depend on the adequacy of impact assessments, mitigation measures, compensation, benefit-sharing agreements and dispute resolution or grievance processes (see Anaya, 2013).

to determine how their territory is used (and conserved) is based on the 'consensus' decision making of the *Asamblea General*. These examples are not conclusive. Legacies of caciquismo still present barriers to political organizing (with some communities looking for 'recognition' to re-activate traditional decision making from so called 'leaders') (Interview 7, 24 January 2014, Interview 8, 24 January 2014). What is clear, however, is that as the social conflicts over wind farming have increased, the political resistance of Zapotec and Ikjoots peoples continues to change.

This [partial] history is relevant because it situates contemporary struggles against state and corporate control of land for wind farming as part of ongoing political struggles of indigenous peoples across southern Mexico for recognition and political autonomy, in contexts of historical injustices. It suggests that contemporary socioenvironmental conflicts involving wind farming are political struggles that are socially produced through successive reconfigurations of territory (relations of production, new forms of enclosures, and shifting conceptualizations of 'value' and 'waste') and political subjectivities (along class, gender or ethnic lines).

5.2 Shifting spatial-political practices of contestation

In this section I trace the ways in which Zapotec and Ikjoots peoples' tactics to interrupt wind farming have changed over time. The purpose behind tracing these changes is twofold. First, I seek to problematize the authenticity of the changes promised by the 'green economy'. Like other peace movements, or anti-violence movements (Loyd, 2012), the struggles of Zapotec and Ikjoots peoples signal the political ecological conditions of oppression that are caused by the 'deepening and widening' of capitalist relations of production, circulation and accumulation in the Isthmus. Second, I seek to show that the increasingly radical political nature of their tactics signals a re-politicization of indigenous peoples' subjectivities. Indigenous resistances in the Isthmus have "generated spaces of articulation at the regional level in order to establish political alliances between social organizations, communities and indigenous peoples to strength their demands, as well as [being characterized by a] preoccupation with the defense of natural resources and the environment and the link between indigenous and environmental rights" (López, 2012, p. 128).

The first organized resistance against wind farming started in 1999 with *ejiditarios* seeking to renegotiate the terms of land access contracts (Jiménez-Maya, 2011). In terms of how land contracts

were negotiated, a Zapotec lawyer I interviewed explained that negotiations were '*sumamente oculto*', extremely secret (Interview 6, 22 January 2014). Mexican companies – *prestanombres* or shell companies – were the first to approach ejidatarios asking to them to sign contracts. The true intentions behind these requests were kept hidden. It was suggested that these contracts were like a blank check. These Mexican companies then started to contract local people to facilitate the agreements. He said, "Why do you want our land? We are not producing? Well, they are not buying your cane so I want to contract [with you] because we are going to do some grand agricultural projects, together we will produce more".

The contracts were unfair, this lawyer explained, from the beginning. "One hundred pesos per hectare per year. And here is the money now so you can see it". Campesinos would reply, "And what do you want now?" "Nothing. Just leave the land. They will come later and together you will participate with us. This is how it began". Towards the end of our interview he explains that for those land holders who were able to lease large parcels of land (more than 100 hectares) they are not so badly off. However, for those who had only small parcels (between two and five hectares), today they are sorry they signed. They were hooked and now they cannot change anything. The contracts are for between 15 and 30 years, with options to extend. The NGO this lawyer worked for reached out and made contacts in Europe, principally with the wind farm cooperatives in Denmark who also produce 'clean energy' who said, "but this is not a fair deal, these contracts are one-sided. There are other models, other models that are totally distinct".

Little by little, this lawyer explained, the companies – the *prestanombres* – were unmasked. Who were they really the owners with whom they had contracted? These were legal questions he said. Because, legally, "the Mexican companies who had contracted with said campesino had sold the contracts to Union Fenosa, to such and such company, above all Spanish. And this Spanish company did not have to dialogue with the campesino in the first place. These contracts, he explained, were then used to secure loans from the multilateral banks, such as the Interamerican Development Bank."

The commencement of the first large-scale wind farm (*La Venta II*) in 2006 marked the acceleration of wind farm development and of increasingly widespread local protests and opposition movements led by indigenous communities. Opposition movements emerged in Unión Hidalgo, Juchitán, Álvaro Obregón,

La Ventosa, San Mateo del Mar, San Francisco del Mar, and Santa Maria Xadaní. Since this time local forms of resistance have adopted different tactics and strategies, including legal and extra-legal proceedings, direct action and civil disobedience, awareness raising activities, local organizing and efforts to separate community assemblies from the influence of local political elites. While diverse, place-based struggles have oriented around issues relating to the environmental impacts of the projects, the irregularities in the land access contracts and, the failure to secure the ‘free, prior and informed consent’ of indigenous communities (López, 2012). Organized opposition groups have also been formed, including the *Comité de Resistencia de Unión Hidalgo* and the *Asamblea en Defensa de la Tierra y el Territorio* in 2006. The *Asamblea* began with a focus on Zapotec lands in Juchitán, however, they have since built alliances across ethnic territories.

The Zapotec community of Unión Hidalgo was the first to formally initiate legal proceedings to annul between 180 and 200 land access contracts²⁴, representing around 4,000ha, which had been negotiated with DEMEX (there are differing accounts as to how many contracts were included in the legal proceedings). Human rights lawyers were approached by the *comuneros* of Unión Hidalgo. Ejidatarios were seeking to have the access agreements set aside (invalidated) claiming that wind companies had not entered into them in good faith and had failed to disclose all relevant information about project impacts (Interview 6, 22 January 2014; Interview 8, 24 January 2014).

The Zapotec lawyer I interviewed explained that the campesinos from Unión Hidalgo and Juchitán started to approach them with their contracts in hand. “Listen, we want to annul these contracts”. I asked why they approached his organization. “Well, because we had a network of community workers who came from the communities, we worked together with them.” He explained that from the legal perspective, under the civil law, the agrarian law, they thought they might be able to annul the contracts. In the case of Unión Hidalgo, he explained that contracts had been negotiated on the basis that the lands were private property. They argued that this was incorrect. The lands were, he says, according to the Presidential Decree of 1964, part of the ejido of Juchitán. Santiago spent some time explaining to me the complex nature of land tenure and agrarian law in Mexico. Article 27 of the post-revolution Constitution was introduced to facilitate the land restitutions. Under this article the return of ejidal lands was given

²⁴ The exact numbers are unclear.

legal effect by virtue of a Presidential Decree. In the case of Unión Hidalgo, their lands were included within the ejido of Juchitán. The confusion, he explained, was due to the fact that there was no Ejidal Comisariado in Juchitán. On the basis that the land was ejidal not private property, between 180 and 200 ejidatarios filed legal proceedings in the local Agrarian Tribunal seeking to annul the land access contracts. Ultimately, the proceedings were settled out of Court. Santiago explained that protests, marches and community forums, as well as the legal proceedings themselves, influenced the decision. “If you could hear the farmers who were able to leave their contracts, and continue working their lands. It’s beautiful, their support for their land, for their life projects” (Interview 6, 22 January 2014).

5.3 Radical politics in Álvaro Obregón

At this stage I want to return to the case study of Álvaro Obregón and their opposition to the San Dioniso project. Figure 8 situates the key sites and communities affected by this project.

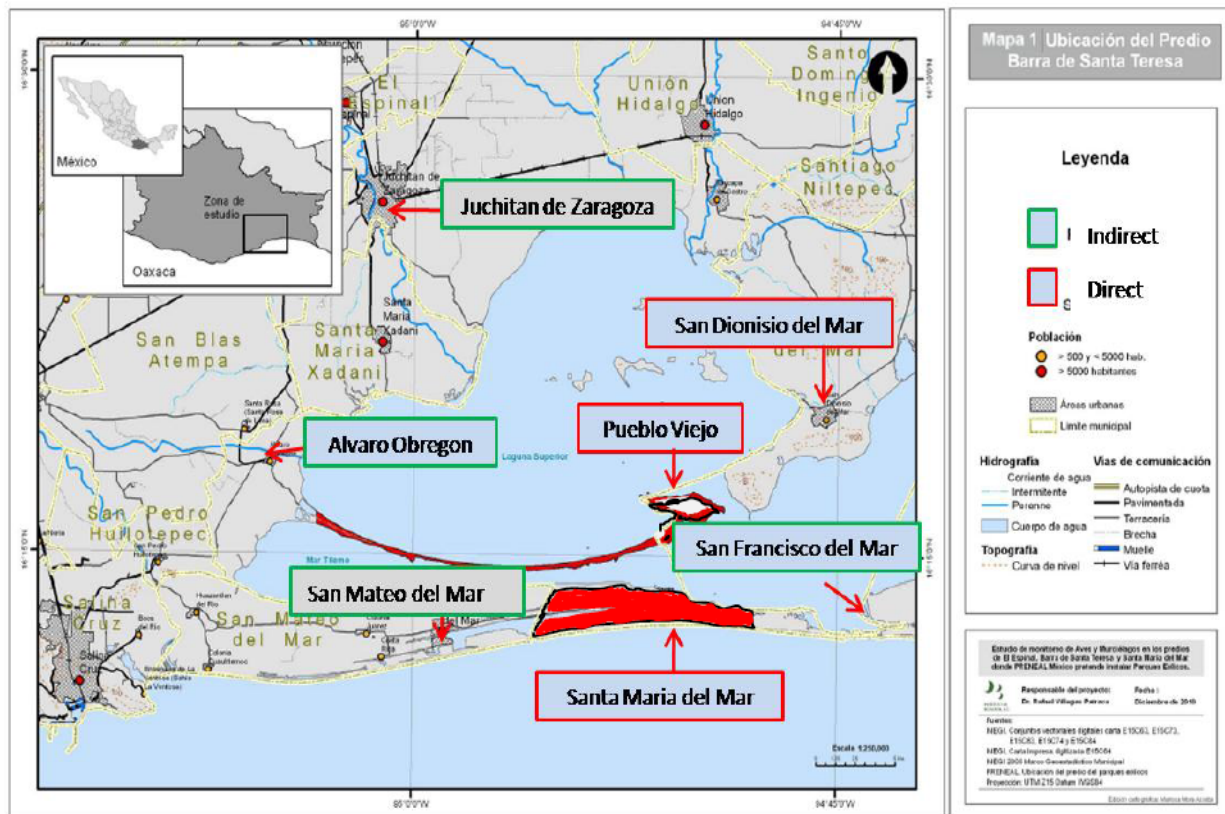


Figure 8: Locating the San Dioniso Project (IADB, 2011)

In the case of the San Dionisio project, then-developer Spanish wind energy expert PRENEAL began negotiating land access contracts with Huave communities in Santa Maria del Mar and San Dionisio del Mar in 2003 (Rojas, 2014). PRENEAL envisioned constructing thirty wind turbines in Santa Maria del Mar and 102 along the Barra, with a combined capacity to generate 396MW of wind energy each year, offsetting more than 500,000 tons of CO₂-equivalent greenhouse gas emissions each year (CDM, 2012b; IADB, 2011). Three years later PRENEAL announced it had secured access rights to 2,000 hectares of land in Santa Maria del Mar as well as exclusive access rights to the Barra. Additional land would be necessary for the purposes of constructing three new electricity substations (in Virgen del Carmen, Tileme and Santa Teresa), fifty-two kilometers of new transmission lines to connect these new facilities to a proposed new substation at Ixtepec – the substation that would connect the farm to the Mexican national electricity system, and for constructing new and improving existing roads (IADB, 2011). The Barra would also require six dock facilities necessary during construction and operation (IADB, 2011). In 2011 PRENEAL sold its development rights to Mareña Renovables, a consortium of domestic and foreign investors (Rojas, 2014). The consortium includes Macquarie Bank, Australia; Mitsubishi, Japan; and PGGM, a Dutch pension fund.

In separate legal proceedings filed in 2012, the community of San Dionisio del Mar petitioned the Interamerican Court of Human Rights to intervene in relation to the Mexican government's decision to approve the Mareña Renovables project. The community alleged the Mexican government had approved the project in violation of their rights to free, prior and informed consent, to property, to cultural identity and to environmental protection, rights that are protected by international law (ICIM-IDB, 2013). On 26 December 2012 representatives of the indigenous communities of Santa María Xadani, San Mateo del Mar, Colonia Álvaro Obregón, San Francisco del Mar, San Dionisio del Mar, Juchitán de Zaragoza and Unión Hidalgo petitioned the Interamerican Development Bank (IADB), through its independent consultation mechanism, to reconsider its decision to provide financial support for the Mareña Renovables project on the basis that the planning and development of the project failed to comply with the Bank's social and environmental safeguards (ICIM-IDB, 2013).

Despite these allegations remaining unresolved construction of the project commenced in about November 2012. At that time, the Zapotec community of Álvaro Obregón decided to block the only land

entrance to the Barra de Santa Teresa. This blockade has effectively prevented government and wind-industry representatives from gaining access to the Barra under any circumstance. This community has also maintained a voluntary community police force to protect local leaders. The decision by the community of Álvaro Obregón to block construction was made by the *Asamblea General* – a community level forum where all community members participate in decision making – on the basis that they had never been properly consulted by PRENEAL or Mareña Renovables, that land access agreements had, from their perspectives, been negotiated fraudulently by ‘corrupt’ local government officials and without the broad consent of all affected communities, and that construction of the San Dionisio project would, ultimately, exclude them accessing the fishing and farming resources that are central to their agrarian livelihoods. The blockade in Álvaro Obregón represented a catalyst that triggered a community-wide effort to reassert agency over their traditional decision making processes (*sistema normativa indígena*) and activate their rights to self-determination. Following the initiation of the blockade they then refused to participate in formal local government elections in July 2013, preventing Mexico’s electoral commission (*Instituto Federal Electoral*) from setting up voting booths. They claimed that these elections had simply become a mechanism abused by political elites to further their own personal interests. They claimed that the influence of formal political parties was an expression of ongoing ‘caciquismo’. On 13 December 2013 they elected, through the Asamblea General, their own representatives, the *cabildo comunitaria*.

As the opening vignette highlighted the foreign investors announced they would not proceed with the San Dionisio project in the Barra. However, in March this year (2014) allegations of violence against the community of Álvaro Obregón were publicized in a series of media released by the APIDTTI (dates). The allegations of violence had followed the Municipal Government of Juchitán’s refusal to recognize the legitimacy of the *cabildo comunitaria*. In a subsequent notice from the APIDTTI (22 March 2014) twelve members of the Zapotec *policia comunitaria* were arrested by local police.

At this site of contestation, resistance challenges the legitimacy (and hegemony) of neoliberal environmental governance in wind while simultaneously creating spaces for alternative livelihood possibilities and new political communities. I use this case study to illustrate how as their forms of political resistance have increased, and are increasingly being practiced beyond the ‘state’, they are being exposed to increasing forms of state sanctioned repression. By attempting to erase possibilities to

nonviolently resist the threats of harm presented by capitalist wind-farming, state-sanctioned repression operates not only as direct violence in the short term but also as a form of structural (long term, slow) violence that is constitutive of climate capitalism more broadly, and specifically the 'virtual' peace of Mexico's clean energy transition.

CHAPTER 6: MAKING SPACE FOR PEACE

*No existe la libertad,
sino la búsqueda de la libertad,
y esa búsqueda es la que nos hace libres.*

*Freedom does not exist,
only the search for freedom,
and this search is what sets us free.*

Carlos Fuentes

Freedom, like peace, does not exist as a utopian condition, out there to be 'discovered'. As Carlos Fuentes explains so beautifully, it exists only through a process, through a continuous (and never ending) process of searching for 'that, which is yet to come' (Latour, 2002). Geographers of peace have drawn similar conclusions. In her synthesis of geographical scholarships on peace, Loyd (2012) suggests that these works coalesce around a theoretical perspective where peace is conceptualized as a *process* rather than as constitutive of war (rejecting a dualist understanding of peace as the absence of war). Peace is a process that is always in the making, a process that infuses (and animates) the micro politics of everyday life. It is not the cosmopolitan imaginary of a conflict-free existence, that tends towards the homogenization of difference that Harvey (2000) warns against; the epistemic closure that political ecologists warn against. Peace is a process characterized by differences and conflicting knowledges, contestations that produce spaces of hybridity where the fluidity of identity and culture reside (Richmond, 2011). These are the spaces of agonism that Laclau & Mouffe (2001) and Mouffe (2005) explain are sites where capacities to resist are maintained, not restricted.

In an open letter to Mexican President Enrique Peña Nieto the *Centro de Derechos Humanos Tepeyac* ("Tepeyac"), a local catholic NGO that had worked in the Isthmus for almost twenty years, denounced the allegations of violent repression against the community of Álvaro Obregón (Lona Reyes, 2014). The letter urged the Federal government to take action to guarantee the safety of community leaders and, respect their collective exercise of self-determination to build understanding and peace

within their community²⁵. The public denouncement of violence and the letter's assertion that Alvaro Obregon was engaged in peace building was reiterated by Tepeyac own claim that they too were "fighting for peace, fruits of justice and love between peoples"²⁶. As far as I know this was the first time an organization in solidarity with these indigenous communities had explicitly used the language of peace to describe these localized struggles, even though violence had been used in the past. What is so significant about the language of peace as it is used here is that it recognizes the conflictual tactics of Zapotec and Ikkoots peoples to interrupt 'green capital' not as the cause of violence but as efforts to create, assert and protect their plural worlds in settings of real or apprehended violence (A. Mitchell, 2011). Their tactics to interrupt 'green capital' can be understood as forms of peacebuilding that are "less obvious to the liberal gaze" (Richmond, 2011, p. 142) and challenge the virtual peace of Mexico's clean energy transition.

This thesis concludes with an analysis of what these place-based struggles to resist the expansion of capitalist wind farming teach us about transformative social and political practice in the context of conflicts over socionatural change for a 'clean energy transition'. The purpose of this chapter is to engage in dialogue with policy makers, international development foundations and NGOs whose objectives are broadly oriented around social justice and the transformation of socionatural conflicts. Many of the NGOs I am thinking will benefit from this dialogue work with indigenous communities in resistance. This thesis will be given to participants with an open invitation to question and challenge the analysis and conclusions. One of the initial objectives of this research was to understand the political effects of NGO interventions into the social conflicts over capitalist wind farming in the Isthmus. Were NGOs inadvertently flattening the politics at this 'green energy' frontier and therefore smoothing the way for the expansion of 'green capital'? This was an ambitious objective. The answer remains uncertain. Exploring it will require a more intensive and long-term research program. However, by taking a historical perspective that examines how wind came to bear capitalist value, and by problematizing the framing of localized struggles as the cause of conflict, highlighting their continuation of long histories of struggle for land, territory and autonomy, I interpreted them as resistance-as- peacebuilding because they (a) make visible the structures of violence the commodification of wind exacerbates and (b) are generative of new

²⁵ "el buen entendimiento y la paz entre los habitantes de esta comunidad" (Lona Reyes, 2014, p. 1)

²⁶ "Estamos luchando por la paz, fruto de la justicia y el amor entre los pueblos" (Lona Reyes, 2014, p. 1)

sociopolitical relations between conflicting actors. Focusing on movement activities, and the agency that people are exercising, demonstrates the ways in which alternative visions of peace are being enacted (what Koopman (2011) describes as 'alter-geopolitics'), where they are being enacted, and by whom. This reading provides some important insights.

I am cautious not to reify or romanticize the 'local' in this case. As all interviewees explained communities across the Isthmus appear divided in terms of their collective or individual opposition or support for the expansion of wind farming. Some communities have agreed to accept the benefits that flow from the wind farming projects (the case of Santa Maria del Mar is illustrative). However, in light of the historical continuities of marginalization and exclusion facing indigenous peoples in Mexico, it is difficult to reasonably conclude that these agreements were decisions 'freely' given. As Terry Eagleton remarks in his book 'Why Marx was Right', "If there is only one course of action I can possibly take, and if it is impossible for me not to take it, then in that situation I am not free" (2011, p. 47). Eagleton also makes the point that "Human beings are not at their best in conditions of scarcity, whether natural or artificial" (2011, p. 93)). In one project description submitted to the IFCCC (CDM) registration process, the project proponent described in detail how 'community' concerns were taken into account:

In December 2007, 180 bags with food supplies were provided to the land owners that at that time had a lease agreement with Fuerza y Energia Bii Hioxo, S.A. de C.V. The bags with food supplies included rice, beans, wheat flour, sugar, coffee, chillies, cookies, tomato sauce, soup, etc. The donation was well received by the land owners; some of them even showed grateful to company representatives. Each bag with food supplies was valued in US\$ 16 so the contribution amounted to US\$ 2,880 (CDM, 2012a, p. 45).

According to this project document, almost identical 'food bags' were distributed in December 2008 and December 2010, along with toys (April 2008), mother's day gifts (May 2008) and school supplies (August 2008) (CDM, 2012a, pp. 45–46). On such an uneven playing field, it is highly problematic that such gifts²⁷ were so nonchalantly framed as positive responses to community needs. I read this as a stark example of the deep structural inequalities that characterize relations between wind developers and Istmeños y Istmeñas.

In the context of the expanding frontier of 'green capital' in Mexico how were wind resources in the Isthmus imagined and realized as a new frontier of capitalist expansion and what were the political

²⁷ Gifts, which problematically, resemble the gifts of 'beads and trinkets' that were typically offered by colonizers to indigenous peoples during early periods of colonization.

ecological effects of framing large-scale private wind farming as 'green' and 'sustainable' developments? The contemporary re-territorialization of the Isthmus as a 'green energy corridor' was abstracted from the contextualized and lived experiences of Indigenous Istmeños y Istmeñas. Temporally this distance is marked by almost twenty years between the installation of the first anemometrical devices and the commencement of the first large-scale wind farm. Although the colloquiums that were organized in the early 2000s were rhetorically 'public' it is unclear who was representing the diverse communities. Communities in resistance today consistently argue that they were not consulted fairly or transparently, or at all in some cases. Were the community representatives the local intermediaries who had been paid by the *prestanombres* to broker the first land access contracts? Were they the local political elites whose legitimacy is today contested in communities like Álvaro Obregón? The spatial distance is marked by the separation between Mexico City (*México imaginario*), where law and policy decisions were made, and the Isthmus itself (*México profundo*); by the technical and decontextualized 'discovery' of the Isthmus' wind resources by the Colorado based NREL; by the negotiations held in international forums to operationalize the clean development mechanism. At each stage of the re-imagination of the Isthmus as a 'clean energy corridor' Indigenous peoples were fundamentally excluded.

This is the argument the maps in Figure 4 and Figure 5 make. They propose that the Isthmus was wasted and empty (and therefore free of history and politics). This trope was politically significant in the negotiations over land access agreements. Companies were only 'willing to pay' between 50 - 150 pesos per hectare per year for the 'degraded' and 'unproductive' coastal plains. As Figure 2 exemplifies in the global ecology of green capital, waste ought to be a source of 'valuable' energy. Only irrational agitators would quibble with that.

The environmental history of the Isthmus as a capitalist wind energy landscape highlighted the central role the Mexican state played in re-making the Isthmus as a strategic wind corridor. In preparing for the operationalization of NAFTA, the Mexican state shifted its priorities away from electricity provision for the benefit of the 'public' (although this was itself a 'liberal' public – a universal civil society that was itself removed from the context and lived experiences of Indigenous peoples across Mexico) to the benefit of the 'market', an ever more disengaged relationship. The translations between 'local' and 'liberal' were distorted through the long histories of oppression, marginalization and exclusion. Efforts to 'capture' the

wind for the market exacerbated caciquismo (further entrenching the political and economic power of local elites) and the internal divisions within and between communities. It exacerbated the uncertainties over land tenure regimes. As struggles today highlight understandings of land and territory do not easily fit within rigid systems of codified land tenure.

How are social movements resisting the 'green' narrative? Local struggles against state and corporate control of wind farming can be understood as part of ongoing political struggles of indigenous peoples across southern Mexico for defense of land and territory in contexts of historical injustices (Binford, 1985; Campbell, 1993, 2001; López, 2012, 2012; Rubin, 1994, 1997). As a space of 'virtual' peace the frontier of 'green capital' in Mexico operates to depoliticize the forms of violence that accompany the commodification and enclosure of nature (and the creative destruction of non-capitalist values). It attempts to produce a smooth, abstract, or virtual space where this structural violence is ignored and political conflict no longer exists. Local struggles make this process of abstraction visible. They make visible the distance between the promises of 'green economy' and the localized effects of these projects. They describe how they have not benefited in any equitable way from these projects, how their biocultural values and systems have been misrecognized as wasted. The processes of making the Isthmus into a strategic wind energy corridor were decontextualized and disengaged from their everyday experiences, their agencies, needs and livelihoods.

These same histories of oppression, marginalization and exclusion however highlight the ongoing capacities of indigenous peoples for self-government and political autonomy. In the case of Álvaro Obregón the reinvigoration of the process of the *Asamblea General* is emblematic of the dialogical ethos that appears central, if still nascent in many communities, to the politics of life in the Isthmus. As one interviewee explained:

The companies and the Mexican state itself have planted the myth that many of the communities that are today pursuing self-organization processes or processes of resistance are communities that are not open to dialogue, that they are violent communities, communities that are always wanting to use violence to defend their supposed human rights. This is the argument of the companies. It is the argument of the Mexican state. What we have seen, case by case, is that this is a lie. The communities are always disposed to dialogue because this is part of the philosophy of life. They always propose, almost unequivocally, that if there is a possibility to resolve a problem through dialogue, they do it (Interview, 24 January 2014).

In this context, these struggles can contribute to our understanding of 'resistance as peacebuilding' in three ways. First, that contextualized visions of peace are understood as processes that are articulated with the political autonomies of indigenous peoples, and the protection of their agrarian and biocultural systems. Second, that mobilizations against large-scale wind farm highlight the forms of structural violence that is intrinsic to life at 'green energy' frontiers. Third, these struggles emphasize the spaces where peacebuilding occurs (both within and outside the state).

What does this mean for NGO interventions in regards to green energy frontiers? The NGO interventions discussed in this thesis did not frame the place-based struggles of Indigenous Istmeños as the cause of conflict. These NGOs, however, still draw upon technocratic interventions that appear less and less relevant in light of the increasingly political forms of resistance being practiced by communities like Álvaro Obregón. The (irresistible) desire to identify 'best practices' is one example that is at risk of becoming a technique that inadvertently produces a 'virtual' space that is dis-embedded from the historical and geographical specificities of particular locales. New political forms of resistance, exemplified by Álvaro Obregón, operate beyond the state that calls into question the efforts of NGOs to use the state apparatus to support indigenous tactics of resistance. Improving access to information, public participation in environmental decision-making (through improving assessment and approval processes), and government accountability (transparency and access to justice) do not necessarily engage with the structures of violence that accompany the expansion of 'green capital'. Several of the NGOs I spoke with recognize this challenge.

Many of the NGOs I interviewed described their primary objective was to work with (acompañar) the communities in resistance. They describe the term 'acompañar' in different ways. The term acompañar was used to describe various practices including legal representation (e.g. seeking to have land access contracts nullified or filing lawsuits for human rights violations), advocacy (e.g. seeking to change corporate or state behaviors) and research (e.g. sharing information and analysis). Sara Koopman (2011) discusses the nature of 'accompaniment' in relation to peace zones in Colombia. In the case of San José de Apartadó and the work of Fellowship of Reconciliation (FOR), accompaniment refers to the embodied practices of privileged bodies walking alongside bodies in danger in order to make space for peace by preventing actual violence (even if it is spatially and temporally constrained). There are clear differences

between Koopman's focus on bodies in motion creating alternative securities, and the focus in this thesis on NGO interventions that involve legal representation, advocacy and research. However, NGO bodies are also in motion and they too seek to create spaces for peacebuilding by buffering communities against the economic and geopolitical power of transnational companies, and the unaccountable power of the Mexican state. In some cases, NGO efforts to transform the contemporary conflicts in the Isthmus did not appear to recognize the political dimensions of these conflicts or, the political autonomy of different indigenous communities. As an Indigenous activist explained: "they [NGOs] say they accompany us, but there are some NGOs that don't accompany, they decide and take the place of the community and the movement (Interview 7, 24 January 2014). However, closing the distance in space and time between the interventions and the forms of resistance being practiced by Istmeños and Istmeñas, has the potential to co-create spaces for indigenous peoples to continue to nurture their autonomous capacities and 'heal' the wounds of historical injustices. NGOs can do this through working with communities in resistance who seek to strengthen their internal cohesion and perform their alternative development visions. This is the nature of transformative political practice at this 'green energy' frontier.

APPENDIX 1: WIND FARMING IN THE ISTHMUS OF TEHUANTEPEC (1994 – 2013)

Name	Year	Location	Turbines	MW	MWh/yr	CDM	GHG/yr	Developer	Consumer
La Venta I	1994	La Ventosa	7	2				CFE	Pilot
IIEE	2000		1					IIEE	Demonstration
La Venta II	2006	La Ventosa	98	83.3	307,728	2007	192,545	Gamesa Eolica	CFE
La Ventosa	2008	La Ventosa	120	102	376,000	2007	224,040	Iberdrola	Unknown
Eurus I	2009	La Venta	167	250.5	989,500	2006	603,183	Acciona	CEMEX
Eurus II	2010	La Venta	33	49.5				Acciona	CEMEX
Eléctrica del Valle de México	2010	La Mata and La Ventosa	20	50	291,511	2011	168,445	EDF	Nueva Wal-Mart de México, S. de R.L.
Bii Nee Stipa I	2010	El Espinal	31	26.3	640,680	2005		Iberdrola	FEMSA-Coca Cola (Oxxo)
La Venta III	2011	La Venta	121	103				Acciona	CFE
Oaxaca I	2011	Santo Domingo Ingenio	51	102	374,748	2011	223,724	ACS	CFE
Bii Nee Stipa II	2012	El Espinal	37	74				ENEL	FEMSA-Coca Cola (Oxxo)
Oaxaca II	2012	Santo Domingo Ingenio	68	102	413,712	2012	240,159	Acciona	CFE
Oaxaca III	2012	La Venta	68	102	399,228	2012	231,751	Acciona	CFE
Oaxaca IV	2012	Santo Domingo Ingenio	68	102	422,076	2012	245,015	Acciona	CFE
Piedra Larga I	2012	Unión Hidalgo	45	90	365,930	2011	209,761	DEMEX	Grupo Bimbo
Fuerza Eólica del Istmo	2012	El Espinal	20	50	214,000	2009	133,350	Peñoles	Met-Mex Peñoles
Bii Nee Stipa III	2012	El Espinal	35	70		2007	291,246	ENEL	FEMSA Coca-Cola (Oxxo)
Fuerza Eólica del Istmo II	2013	El Espinal	12	30	111,348	2013	68,700	Peñoles	Met-Mex Peñoles
Bii Sintu	2013	Juchitán	82	164	641,240	2009	325,349	EDF/ Mitsubishi	Unknown
Istmeño Wind Farm		San Mateo del Mar y Santa María del Mar	95	215.5		2012	580,619		FEMSA Coca-Cola (Oxxo)
Piedra Larga II		Unión Hidalgo	69	137.5		2013	321,803	Demex	Grupo Bimbo
Bii Hioxo		Juchitán	117	227	767,678	2012	427,301	Unión Fenosa/Gas Natural	CFE and Industrial clients 50:50
San Dionisio		San Dionisio del Mar y Santa María del Mar	60	396	804,799	2013	476,440	Energía Eolica Mareña	FEMSA Coca-Cola (Oxxo)

Electricity Supply modalities	
	Demonstration
	State operator
	Independent production
	Self supply

Source: Adapted from UNFCCC, Clean Development Mechanism project descriptions

APPENDIX 2: INTERVIEW QUESTIONNAIRE

Title: Understanding NGO interventions in conflicts over natural resources in Mexico: a case study of conflict transformation involving proposed wind-farms in the Isthmus of Tehuantepec, Mexico (Masters thesis research)

General themes

Interviews will be based on general themes, which will provide a basic structure for the conversations and are meant as guidelines for the researcher to orient the conversations. Those conducted with **experts and NGO staff in Mexico City and Oaxaca City** will cover the following themes:

- Description of history and contemporary processes of community resistance and social mobilizations in Mexico and in Isthmus de Tehuantepec, Oaxaca specifically: identification of political-economic contexts, strategies for mobilization, successes and constraints
- Identification of who the relevant actors are and perceptions of their objectives, motivations, relationships with other actors
- The role of land, territory and identity in struggles for social and environmental justice, both nation-wide and in Tehuantepec.
- Description and history of NGOs in Mexico and in the Isthmus de Tehuantepec: histories, objectives, organizational structures, motivations, strategies for interventions, use of partnerships with other groups, successes and constraints
- Perceptions of NGO interventions: processes and motivations that guide decisions regarding program development, coalition building, design and implementation of interventions.

Interviews with **local leaders and community members in Juchitán and other towns across the Isthmus de Tehuantepec, Oaxaca** will consist of open- ended questions, and will preferably be held in group settings and domestic spaces, as is local custom. These semi-structured conversations will cover the following themes:

- Description of local histories, local decision making processes, community organizing, changing livelihoods, and resistance
- Historical relations and current alliances/divisions in social mobilizations.
- Historical relations to land and territory, spaces of everyday practices
- Perceptions of current situation (planned expansion of wind farms across the region), and the different actors involved (governments, private sector, universities, NGOs, international community)
- The role of land, territory and/or identity in relation to current social mobilizations
- Perceived potentials and limits of legal and policy developments
- Perceptions of NGOs: experiences working with NGOs, potentials and limits of doing so.

Research aims:

Research will consist of mainly of open-ended questions and observations, involving men and women, institutional experts and local community members. Questions will be directed towards investigating the research aims, with a view to understanding changes across time and space. Subject to the knowledge of individual participants not all these questions will apply.

1. Identify the current trends, objectives, discourses and broad political/social dynamics of social mobilizations against the existing and proposed large-scale renewable energy projects (specifically wind farms and associated renewable energy infrastructure) across the region of the Isthmus de Tehuantepec, Mexico.
 - When were communities first made aware of the proposals? How were they made aware?

- Since communities were first made aware of these projects how have different communities responded and why?
 - How do different groups conceive (understand) the root causes of the current tensions and why? What implications do these different understandings have?
 - How has community opposition to these projects developed and why? What sorts of initiatives / activities have been pursued and why? How has this opposition (and strategizing) changed over time?
 - What is the significance of land, territory and/or indigeneity in these struggles? [How do different groups understand these terms?]
 - How would you describe the relationships between community-led organizing groups and governments, international donors, NGOs and other local initiatives?
2. Identify the everyday activities (creative, intellectual, physical) that people across the Isthmus are engaged in as part of their opposition to existing and proposed large-scale renewable energy projects
- Prior to wind-farm proposals how would describe the day-to-day activities of communities in the region? In other words, what would a regular workday involve for women, men, youth and elders? In what ways (if any) do you think these activities have changed since the first wind-farms were built?
 - What sort of activities / initiatives or resistance strategies are different groups engaged in and why have they chosen these strategies? In what ways have these activities / initiatives changed over time?
 - Apart from the direct actions (for examples the blockages, marches) what other initiatives are being pursued and why?
3. Identify the objectives, motivations, expectations and different forms of assistance being provided by NGOs working in conflict resolution in relation to socio-environmental conflicts in the region of the Isthmus de Tehuantepec, Mexico;
- Prior to the wind-farm proposals what sort of activities or assistance did NGOs offer and why?
 - Today what sort of activities are NGOs involved in in the region? Have their activities changed since the first wind-farms were built?
 - How would you describe the work of these NGOs (e.g. community development, training, economic development, advocacy, etc.)?
 - How do these NGOs relate to community-based organised opposition and why?
 - How would you describe the goals, objectives and motivations of the different NGOs? How do these goals, objectives and motivations relate to the goals, objectives and motivations of the community-led organizing?
 - In relation to the tensions over the current (and future) projects and the community organizing that is taking place, what sorts of assistance have NGOs provided and why?
 - How have these initiatives or activities responded to the requests of community members?
 - How do NGOs conceive (understand) the root causes of the current tensions and why? What implications do these understandings have?
 - What roles do you think NGOs have in relation to finding solutions to the current tensions?
4. Identify the different relationships between NGOs and governments, international donors and community-led groups that are mobilizing against existing and proposed large-scale renewable energy projects (specifically wind farms and associated renewable energy infrastructure) across the Isthmus de Tehuantepec, Mexico.
- How would you describe the relationships between NGOs and governments, international donors and community-led groups? How have these relationships changed over time?

REFERENCES

- Agnew, J. (1994). The territorial trap: the geographical assumptions of international relations theory. *Review of International Political Economy*, 1(1), 53–80.
- Alden Wily, L. (2012). Looking back to see forward: the legal niceties of land theft in land rushes. *Journal of Peasant Studies*, 39(3-4), 751–775.
- Alvarez, S., & Escobar, A. (1992). *The Making of social movements in Latin America : identity, strategy, and democracy*. Boulder, Colo.: Westview Press.
- Anaya, J. (2013). *Report of the Special Rapporteur on the rights of indigenous peoples: Extractive industries and indigenous peoples* (No. A/HRC/24/41). United Nations.
- Arsel, M. (2011). Fuelling Misconceptions: UNEP, Natural Resources, the Environment and Conflict. *Development & Change*, 42(1), 448–457.
- Bakker, K. (1999). The politics of hydropower: developing the Mekong. *Political Geography*, 18(2), 209–232.
- Bakker, K. (2003). *An uncooperative commodity : privatizing water in England and Wales*. ;New York: Oxford University Press.
- Bakker, K. (2011). Commons versus commodities: political ecologies of water privatization. In *Global Political Ecology* (pp. 347–370). New York, N.Y.: Routledge.
- Baletti, B. (2012). Ordenamento Territorial: Neo-developmentalism and the struggle for territory in the lower Brazilian Amazon. *Journal of Peasant Studies*, 39(2), 573–598.
- Barabas, A., & Bartolomé, M. A. (1986). *Etnicidad y pluralismo cultural: la dinámica étnica en Oaxaca*. México, D.F.: Instituto Nacional de Antropología e Historia.
- Binford, L. (1985). Political Conflict and Land Tenure in the Mexican Isthmus of Tehuantepec. *Journal of Latin American Studies*, 17(1), 179–200.
- Blaser, M. (2004). Life projects: Indigenous Peoples' Agency and Development. In *In the way of Development: Indigenous Peoples, Life Projects and Globalization* (pp. 26–44). London; New York: Zed Books.
- Blaser, M., Feit, H. A., & McRae, G. (2004). *In the way of development : indigenous peoples, life projects and globalization*. London ;New York: Distributed in the U.S. by Palgrave.
- Blomley, N. (1998). Landscapes of Property. *Law and Society Review*, 32(3), 567–612.
- Bobrow-Strain, A. (2007). *Intimate enemies : landowners, power, and violence in Chiapas*. Durham: Duke University Press.
- Boege, E. (2008). *El patrimonio biocultural de los pueblos indígenas de México: hacia la conservación in situ de la biodiversidad y agrobiodiversidad en los territorios indígenas*. México: Instituto Nacional de Antropología e Historia: Comisión Nacional para el Desarrollo de los Pueblos Indígenas.

- Böhm, S., Misoczky, M. C., & Moog, S. (2012). Greening Capitalism? A Marxist Critique of Carbon Markets. *Organization Studies*, 33(11), 1617–1638.
- Bonfil Batalla, G. (2005). *México profundo : una civilización negada* (1a ed. en este formato.). Barcelona: Debolsillo.
- Borja, M. (2004). *Wind Annual Report 2004*. International Energy Agency.
- Bridge, G. (2011). Resource geographies I: Making carbon economies, old and new. *Progress in Human Geography*, 35(6), 820–834.
- Bridge, G. (2013). Resource geographies II The resource-state nexus. *Progress in Human Geography*, doi: 0309132513493379.
- Burkett, P., & Foster, J. B. (2006). Metabolism, energy, and entropy in Marx's critique of political economy: beyond the Podolinsky myth. *Theory and Society*, 35, 109–156.
- Cadenas, R., & Saldívar, G. (2007). Educación y Nuevas Tecnologías: Central Eoloeléctrica La Venta II. *Revista Digital Universitaria*, 8(12). Retrieved from <http://www.revista.unam.mx/vol.8/num12/art90/int90.htm>
- Campbell, H. (1993). *Zapotec struggles : histories, politics, and representations from Juchitán, Oaxaca*. Washington, D.C.: Smithsonian Institution Press.
- Campbell, H. (2001). *Mexican memoir : a personal account of anthropology and radical politics in Oaxaca*. Westport, Conn.: Bergin & Garvey.
- Castree, N. (2010). Neoliberalism and the Biophysical Environment: A Synthesis and Evaluation of the Research. *Environment and Society: Advances in Research*, 1(1), 5–45.
- CDM. (2012a). *Project Design Document - Fuerza y Energía Bii Hioxo Wind Farm*. Bonn, Germany: International Framework Convention on Climate Change.
- CDM. (2012b). *Project Design Document: San Dionisio Wind Farm*. Bonn, Germany: United Nations Framework Convention on Climate Change.
- CFE. (2012). *Programa de Obras e Inversiones del Sector Eléctrico*. México, D.F.: Comisión Federal de Electricidad.
- Clark, B., & York, R. (2005). Carbon metabolism: Global capitalism, climate change, and the biospheric rift. *Theory and Society*, 34(4), 391–428.
- Clark, B., & York, R. (2008). Rifts and Shifts: Getting to the Root of Environmental Crises. *Monthly Review*, 60(6), 13–24.
- De Buen, O. (2010). *Guía para el Desarrollo de Proyectos de Generación de Electricidad con Energía Renovable en y para los Municipios*. Agencia de los Estados Unidos para el Desarrollo Internacional. Retrieved from <http://www.renovables.gob.mx/res/1658/GuiaDesarrolloProyectosGeneracionElectricidadPartirERMunicipios.pdf>

- De la Fuente López, A. (2013, August 8). Porque tenemos derecho a elegir. *Animal Político*. Retrieved from <http://www.animalpolitico.com/blogeros-res-publica/2013/08/08/porque-tenemos-derecho-a-elegir/#axzz2bOzNYi5f>
- Díez, J., & Rodríguez, R. (2008). Environmental Justice in Mexico: The Peñoles Case. In D. V. Carruthers (Ed.), *Environmental Justice in Latin America* (pp. 161–181). The MIT Press. Retrieved from <http://mitpress.universitypressscholarship.com/view/10.7551/mitpress/9780262033725.001.0001/upso-9780262033725-chapter-8>
- Dikec, M. (2012). Space as a mode of political thinking. *Geoforum*, 43(4), 669–676.
- Dittmer, J. (2010). Textual and Discourse Analysis. In *The SAGE Handbook of Qualitative Geography* (pp. 274–286). London, UK: SAGE Publications Ltd. Retrieved from http://knowledge.sagepub.com/view/hdbk_qualgeography/n17.xml
- Dixon, D. (2010). Analyzing Meaning. In *Research Methods in Geography: A Critical Introduction* (pp. 392–407). Oxford, England: Blackwell Publishing Ltd.
- Dove, M. (2006). Indigenous People and Environmental Politics. *Annual Review of Anthropology*, 35, 191–208.
- Eagleton, T. (2011). *Why Marx was right*. New Haven, CT: Yale University Press.
- Edelman, M. (2001). SOCIAL MOVEMENTS: Changing Paradigms and Forms of Politics. *Annual Review of Anthropology*, 30(1), 285.
- Elliot, D., Schwartz, M., Scott, G., Haymes, S., Heimiller, D., & George, R. (2003). *Wind Energy Resource Atlas of Oaxaca*. Washington, D.C: National Renewable Energy Laboratory.
- Emel, J., Huber, M. T., & Makene, M. H. (2011). Extracting sovereignty: Capital, territory, and gold mining in Tanzania. *Political Geography*, 30(2), 70–79.
- Enciso, A. (2014, March 15). Considera ONU “contradictoria” la reforma energética de México. *La Jornada*, p. 3. México, D.F.
- Engels, F., & Marx, K. (1978). *The Marx-Engels reader*. (R. C. (Robert C. Tucker, Ed.) (2d ed.). New York: Norton.
- Escobar, A. (1999). After Nature: Steps to an Antiessentialist Political Ecology. *Current Anthropology*, 40(1), 1–30.
- Escobar, A. (2008). *Territories of difference : place, movements, life, redes*. Durham: Duke University Press.
- Escobar, A. (2010). Postconstructivist political ecologies. In *International Handbook of Environmental Sociology* (2nd Edition., pp. 91–105). Cheltenham, UK: Edward Elgar Publishing.
- Fairclough, N. (2001). Critical Discourse Analysis as a Method in Social Scientific Research. In *Methods of Critical Discourse Analysis* (pp. 121–138). London: SAGE Publications Ltd. Retrieved from <http://knowledge.sagepub.com/view/methods-of-critical-discourse-analysis/n6.xml>

- Featherstone, D. (2013). The Contested Politics of Climate Change and the Crisis of Neo-liberalism. *ACME: An International E-Journal for Critical Geographies*, 12(1), 44–64.
- Foster, J. B. (2000). *Marx's ecology: materialism and nature*. New York: Monthly Review Press.
- Fraser, N. (1999). Social justice in the age of identity politics. In *Culture and Economy after the Cultural Turn* (pp. 72–89). Thousand Oaks, CA: SAGE.
- Galeano, E. (1997). *Open veins of Latin America : five centuries of the pillage of a continent* (25th anniversary ed. / foreword by Isabel Allende.). New York: Monthly Review Press.
- Galtung, J. (1964). What is peace research? *Journal of Peace Research*, 1(1), 1–4.
- Galtung, J. (1969). Violence, Peace, and Peace Research. *Journal of Peace Research*, 6(3), 167–191.
- Galtung, J. (1971). A Structural Theory of Imperialism. *Journal of Peace Research*, 8(2), 81–117.
- Ghosh, K. (2006). Between Global Flows and Local Dams: Indigenoussness, Locality, and the Transnational Sphere in Jharkhand, India. *Cultural Anthropology*, 21(4), 501–534.
- Gidwani, V., & Reddy, R. N. (2011). The Afterlives of “Waste”: Notes from India for a Minor History of Capitalist Surplus. *Antipode*, 43(5), 1625–1658.
- Gobierno Federal de México. (2013, July 13). Estrategia Nacional de Cambio Climático. Retrieved from <http://www.presidencia.gob.mx/estrategia-nacional-de-cambio-climatico/>
- Goldman, M. (2005). *Imperial nature : the World Bank and struggles for social justice in the age of globalization*. New Haven: Yale University Press.
- Graeber, D. (2013). It is value that brings universes into being. *HAU: Journal of Ethnographic Theory*, 3(2), 219–243.
- Gramsci, A. (1971). *Selections from the prison notebooks of Antonio Gramsci*. (Q. Hoare & G. Nowell-Smith, Eds.) (1st ed.). International Publishers.
- Gregory, D. (2010). War and peace. *Transactions of the Institute of British Geographers*, 35(2), 154–186.
- Halewood, M. (2012). On natural-social commodities. The form and value of things. *The British Journal of Sociology*, 63(3), 430–450.
- Hall, J. (2007). Historicity and Sociohistorical Research. In *The SAGE Handbook of Social Science Methodology* (pp. 82–102). London: SAGE Publications Ltd.
- Hamister, L. (2012). Wind Development of Oaxaca, Mexico's Isthmus of Tehuantepec: Energy Efficient or Human Rights Deficient? *Mexican Law Review*, 5(1), 151–179.
- Haraway, D. (1988). Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies*, 14(3), 575–599.
- Harris, J. (2010). Going green to stay in the black: transnational capitalism and renewable energy. *Race & Class*, 52(2), 62–78.

- Harvey, D. (1996). *Justice, nature and the geography of difference*. Cambridge, Mass.: Blackwell Publishers.
- Harvey, D. (2000). Cosmopolitanism and the Banality of Geographical Evils. *Public Culture*, 12(2), 529–564.
- Harvey, D. (2005). *The new imperialism*. Oxford ;New York: Oxford University Press.
- Harvey, D. (2006). Neo-Liberalism as Creative Destruction. *Geografiska Annaler: Series B, Human Geography*, 88(2), 145–158.
- Henderson, G. (1998). Nature and Fictitious Capital: the historical geography of an agrarian question. *Antipode*, 30(2), 73–118.
- Henderson, G. (2013). *Value in Marx : the persistence of value in a more-than-capitalist world*. Minneapolis: University of Minnesota Press.
- Heynen, N., McCarthy, J., Prudham, S., & Robbins, P. (2007a). Introduction: False Promises. In *Neoliberal Environments: False Promises and Unintended Consequences* (pp. 1–21). London; New York: Routledge.
- Heynen, N., McCarthy, J., Prudham, S., & Robbins, P. (Eds.). (2007b). *Neoliberal environments : false promises and unnatural consequences*. London ;New York: Routledge.
- Horowitz, L. S. (2009). Environmental violence and crises of legitimacy in New Caledonia. *Political Geography*, 28, 248–258.
- Howe, C. (2011). Logics of the Wind: Development Desires over Oaxaca. *Anthropology News*, 52(5), 8.
- HSBC. (2013). In the future, there will be no difference between waste and energy. Retrieved from <http://www.hsbc.com/~media/HSBC-com/about-hsbc/in-the-future/pdfs/sustainable-investments-advert.ashx>
- Huber, M. T. (2011). Enforcing Scarcity: Oil, Violence, and the Making of the Market. *Annals of the Association of American Geographers*, 101(4), 816–826.
- IADB. (2011). *Mareña Renovables Wind Power Project: Environment and Social Management Report* (No. ME-L1107). Washington, D.C.: Interamerican Development Bank.
- IADB. (n.d.). *Mareña Renovables Wind Power Project: Environmental and Social Strategy*. Washington, D.C.: Interamerican Development Bank. Retrieved from idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=36416994
- ICIM-IDB. (2013). *Determination of Eligibility for the Consultation Phase Mexico. Mareña Renovables Wind Project* (No. ME-MIC1002-2012). Independent Consultation and Investigation Mechanism - Interamerican Development Bank.
- Jiménez-Maya, I. (2011). El Megaproyecto Eólico en el Istmo de Tehuantepec, Oaxaca. Energías Limpias, Empresas Sucias y Resistencia Social. In *Planes Geoestratégicos, Desplazamientos y Migraciones Forzadas en el área del proyecto de desarrollo e integración de Mesoamérica* (pp. 222–241). Mexico: DEAS-INAH, CEFI (Universidad de los Andes), Universidad de Antioquia.

- Kaika, M. (2006). Dams as Symbols of Modernization: The Urbanization of Nature Between Geographical Imagination and Materiality. *Annals of the Association of American Geographers*, 96(2), 276–301.
- Koopman, S. (2011). Alter-geopolitics: Other securities are happening. *Geoforum*, 42(3), 274–284.
- Krygier, J., & Wood, D. (2009). Ce n'est pas le Monde [This is not the world]. In *Rethinking Maps: New Frontiers in Cartographic Theory* (pp. 189–219). London; New York: Routledge.
- Laclau, E., & Mouffe, C. (2001). *Hegemony and socialist strategy: towards a radical democratic politics* (2nd ed.). London ;New York: Verso.
- Latour, B. (1993). *We have never been modern*. Cambridge, Mass.: Harvard University Press.
- Latour, B. (2002). *War of the worlds : what about peace?* Chicago: Prickly Paradigm Press.
- Le Billon, P. (2001). The political ecology of war: natural resources and armed conflicts. *Political Geography*, 20(5), 561–584.
- Le Billon, P. (2008). Diamond Wars? Conflict Diamonds and Geographies of Resource Wars. *Annals of the Association of American Geographers*, 98(2), 345–372.
- Lederach, J. (2005). *The moral imagination : the art and soul of building peace*. New York: Oxford University Press.
- Lema, A., & Lema, R. (2013). Technology transfer in the clean development mechanism: Insights from wind power. *Global Environmental Change*, 23(1), 301–313.
- Levien, M. (2011). Special Economic Zones and Accumulation by Dispossession in India. *Journal of Agrarian Change*, 11(4), 454–483.
- Li, T. M. (2010). Indigeneity, Capitalism, and the Management of Dispossession. *Current Anthropology*, 51(3), 385–414.
- Lokey, E. (2009). *Renewable energy project development under the clean development mechanism : a guide for Latin America*. London ; Sterling, VA: Earthscan.
- Lona Reyes, A. (2014, March 3). Acción Urgente.
- López, C. F. L. (2012). *La Lucha Indígena por la Dignidad Humana. Conflictos Socioambientales y Derechos Humanos en el Movimiento Indígena del Istmo de Tehuantepec*. Centro de Investigaciones y Estudios Superiores en Antropología Social, Guadalajara, Jalisco, México.
- Loyd, J. M. (2012). Geographies of Peace and Antiviolence. *Geography Compass*, 6(8), 477–489.
- Lukes, S. (1974). *Power : a radical view*. London ;New York: Macmillan.
- Lund, C. (2011). Fragmented sovereignty: land reform and dispossession in Laos. *Journal of Peasant Studies*, 38(4), 885–905.
- Mac Ginty, R. (2012). Routine peace: Technocracy and peacebuilding. *Cooperation and Conflict*, 47(3), 287–308.

- Macpherson, C. (1978). *Property, mainstream and critical positions : a reader*. Toronto: University of Toronto Press.
- Martínez Alier, J. (2005). *The environmentalism of the poor : a study of ecological conflicts and valuation*. New Delhi ;New York: Oxford University Press.
- Megoran, N. (2011). War and peace? An agenda for peace research and practice in geography. *Political Geography*, 30(4), 178–189.
- Mehta, L. (2011). The social construction of scarcity: the case of water in western India. In *Global Political Ecology* (pp. 371–386). London ; New York: Routledge.
- Mitchell, A. (2011). *Lost in transformation: violent peace and peaceful conflict in Northern Ireland*. Houndmills, Basingstoke, Hampshire ; New York: Palgrave Macmillan.
- Mitchell, A., & Richmond, O. (2012). *Hybrid forms of peace : from everyday agency to post-liberalism*. Houndmills, Basingstoke, Hampshire ;New York: Palgrave Macmillan.
- Mitchell, T. (1999). Society, Economy, and the State Effect. In *State/culture: State-Formation after the Cultural Turn* (pp. 76–97). Ithaca, N.Y.: Cornell University Press.
- Mitchell, T. (2002). *Rule of experts : Egypt, techno-politics, modernity*. Berkeley: University of California Press.
- Mitchell, T. (2009). Carbon Democracy. *Economy and Society*, 38(3), 399–432.
- Mitchell, T. (2011). *Carbon democracy : political power in the age of oil*. London; New York: Verso Books.
- Moore, J. (2010a). “Amsterdam is Standing on Norway” Part I: The Alchemy of Capital, Empire and Nature in the Diaspora of Silver, 1545–1648. *Journal of Agrarian Change*, 10(1), 33–68.
- Moore, J. (2010b). “Amsterdam is Standing on Norway” Part II: The Global North Atlantic in the Ecological Revolution of the Long Seventeenth Century. *Journal of Agrarian Change*, 10(2), 188–227.
- Moore, J. (2011). Transcending the metabolic rift: a theory of crises in the capitalist world-ecology. *The Journal of Peasant Studies*, 38(1), 1–46.
- Mouffe, C. (2005). *On the political*. London ;New York: Routledge.
- Neruda, P. (1991). *Canto general*. (J. Schmitt, Trans.). Berkeley: University of California Press.
- Newell, P., & Paterson, M. (2010). *Climate capitalism : global warming and the transformation of the global economy*. Cambridge ;New York: Cambridge University Press.
- Nilsson, M., Lucas, P., & Yoshida, T. (2013). Towards an Integrated Framework for SDGs: Ultimate and Enabling Goals for the case of Energy. *Sustainability*, 5, 4124–4151.
- Nixon, R. (2011). *Slow violence and the environmentalism of the poor*. Cambridge, Mass.: Harvard University Press.
- O'Connor, J. (1998). *Natural causes : essays in ecological marxism*. New York: Guilford Press.

- Oceransky, S. (2010). Fighting the Enclosure of Wind: Indigenous Resistance to the Privatization of Wind Resources in Southern Mexico. In *Sparking a worldwide energy revolution social struggles in the transition to a post-petrol world* (pp. 505–522). Oakland, CA: AK Press.
- Oceransky, S. (n.d.). *Wind Conflicts in the Isthmus of Tehuantepec: the role of ownership and decision-making models in indigenous resistance to wind projects in southern Mexico*. World Wind Energy Institute.
- Ong, A. (2006). *Neoliberalism as exception : mutations in citizenship and sovereignty*. N.C.: Duke University Press.
- Oxford University Press. (2000). *Oxford English dictionary [electronic resource]*. Oxford, England: Oxford University Press.
- Parenti, C. (2011). *Tropic of chaos : climate change and the new geography of violence*. New York: Nation Books.
- Pasqualetti, M. J. (2000). Morality, Space, and the Power of Wind-Energy Landscapes. *Geographical Review*, 90(3), 381–394.
- Paulson, S., Gezon, L., & Watts, M. (2005). Politics, Ecologies, Genealogies. In *Political ecology across spaces, scales, and social groups* (pp. 17–37). New Brunswick, N.J.: Rutgers University Press.
- Peck, J., & Tickell, A. (2002). Neoliberalizing Space. *Antipode*, 34(3), 380–404.
- Peet, R., Robbins, P., & Watts, M. (2011). *Global political ecology*. Abingdon, Oxon ;New York, NY: Routledge.
- Peet, R., & Watts, M. (2004). *Liberation ecologies : environment, development, social movements* (2nd ed.). London ;New York: Routledge.
- Pellow, D. N. (1999). Negotiation and Confrontation: environmental policymaking through consensus. *Society and Natural Resources*, 12(3), 189–203.
- Peluso, N., & Watts, M. (2001). *Violent environments*. Ithaca: Cornell University Press.
- Perreault, T., & Valdivia, G. (2010). Hydrocarbons, popular protest and national imaginaries: Ecuador and Bolivia in comparative context. *Geoforum*, 41(5), 689–699.
- Polanyi, K. (2001). *The great transformation : the political and economic origins of our time* (2nd Beacon Paperback ed.). Boston, MA: Beacon Press.
- Poteete, A., Janssen, M., & Ostrom, E. (2010). *Working together: collective action, the commons, and multiple methods in practice*. Princeton, N.J.: Princeton University Press.
- Reyes, A. (2012). Revolutions in the Revolutions: A Post-counterhegemonic Moment for Latin America? *South Atlantic Quarterly*, 111(1), 1–27.
- Reyes, A., & Kaufman, M. (2011). Sovereignty, Indigeneity, Territory: Zapatista Autonomy and the New Practices of Decolonization. *South Atlantic Quarterly*, 110(2), 505–525.
- Ribot, J. C., & Peluso, N. L. (2003). A theory of access. *Rural Sociology*, 68(2), 153–181.

- Richmond, O. (2005). *The transformation of peace*. ;New York: Palgrave Macmillan.
- Richmond, O. (2010). Resistance and the Post-liberal Peace. *Millennium - Journal of International Studies*, 38(3), 665–692.
- Richmond, O. (2011). *A post-liberal peace*. ;New York: Routledge.
- Robbins, P. (2004). *Political ecology: a critical introduction*. Malden, MA: Blackwell Publishing.
- Robertson, M. (2006). The nature that capital can see: science, state, and market in the commodification of ecosystem services. *Environment and Planning D: Society and Space*, 24(3), 367–387.
- Robertson, M., & Wainwright, J. D. (2013). The Value of Nature to the State. *Annals of the Association of American Geographers*, 103(4), 890–905.
- Rojas, R. (2014, February 18). No instalará Mereña Renovables parque eólico en Dionisio del Mar. *La Jornada*, p. 39. Mexico City, Mexico.
- Rose, C. (1990). Property as Storytelling: perspectives from game theory, narrative theory, feminist theory. *Yale Journal of Law and the Humanities*, 37(2), 37–57.
- Routledge, P. (2003). Voices of the dammed: discursive resistance amidst erasure in the Narmada Valley, India. *Political Geography*, 22(3), 243–270.
- Rubin, J. (1994). COCEI in Juchitán: Grassroots Radicalism and Regional History. *Journal of Latin American Studies*, 26(1), 109–136.
- Rubin, J. (1997). *Decentering the regime: ethnicity, radicalism, and democracy in Juchitán, Mexico*. Durham, NC: Duke University Press.
- Schlosberg, D. (2007). *Defining environmental justice: theories, movements, and nature*. Oxford ;New York: Oxford University Press.
- Scott, J. (1998). *Seeing like a state: how certain schemes to improve the human condition have failed*. Conn.: Yale University Press.
- Seidman, I. (2006). *Interviewing As Qualitative Research: A Guide for Researchers in Education and the Social Sciences*. New York: Teachers College Press.
- Sen, A. (1999). *Development as freedom* (1st. ed.). New York: Knopf.
- SENER. (2009). *Programa Especial para el Aprovechamiento de Energías Renovables*. México, D.F.: Secretaria de Energía.
- SENER. (2012). *Estrategia Nacional de Energía 2012 - 2026*. México, D.F.: Secretaria de Energía.
- Smith, B. (2012). Helidoro Charis Castro and the Soldiers of Juchitán: Indigenous Militarism, Local Rule, and the Mexican State. In *Forced Marches: Soldiers and Military Caciques in Modern Mexico* (pp. 110–135). Tucson, Arizona: University of Arizona Press.

- Smith, N. (1984). *Uneven development: nature, capital, and the production of space* (3rd ed.). Athens: University of Georgia Press.
- Soluri, J. (2005). *Banana cultures: agriculture, consumption, and environmental change in Honduras and the United States* (1st ed.). Austin: University of Texas Press.
- Swyngedouw, E. (2010). Apocalypse Forever? Post-political Populism and the Spectre of Climate Change. *Theory, Culture & Society*, 27(2-3), 213–232.
- Swyngedouw, E. (2011). Interrogating post-democratization: reclaiming egalitarian political spaces. *Political Geography*, 30, 370–380.
- Swyngedouw, E. (2013). The Non-political Politics of Climate Change. *ACME: An International E-Journal for Critical Geographies*, 12(1), 1–8.
- Turner, M. D. (2004). Political ecology and the moral dimensions of “resource conflicts”: the case of farmer–herder conflicts in the Sahel. *Political Geography*, 23(7), 863–889.
- Valdivia, G. (2008). Governing relations between people and things: Citizenship, territory, and the political economy of petroleum in Ecuador. *Political Geography*, 27(4), 456–477.
- Valdivia, G. (2009). Indigenous bodies, indigenous minds? Towards an understanding of indigeneity in the Ecuadorian Amazon. *Gender Place and Culture*, 16(5), 535–551.
- Venn, C. (2006). The Enlightenment. *Theory, Culture & Society*, 23(2-3), 477–486.
- Wakild, E. (2013). Environmental Justice, Environmentalism, and Environmental History in Twentieth-Century Latin America. *History Compass*, 11(2), 163–176.
- Walker, G. (2009). Beyond Distribution and Proximity: Exploring the Multiple Spatialities of Environmental Justice. *Antipode*, 41(4), 614–636.
- Walker, M., Roberts, S. M., Jones, J. P., & Froehling, O. (2008). Neoliberal Development through Technical Assistance: constructing communities of entrepreneurial subjects in Oaxaca, Mexico. *Geoforum*, 39(1), 527–542.
- Watkins, M., & Shulman, H. (2008). *Toward psychologies of liberation*. ;New York: Palgrave Macmillan.
- Whitehead, M., Jones, M., & Jones, R. (2007). *The nature of the state: excavating the political ecologies of the modern state*. Oxford ;New York: Oxford University Press.
- Wilson, J. (2011a). Colonising Space: The New Economic Geography in Theory and Practice. *New Political Economy*, 16(3), 373–397.
- Wilson, J. (2011b). Contesting the Plan Puebla Panama: Henri Lefebvre and the Politics of Space in southern Mexico. In *Planes Geoestratégicos, Desplazamientos y Migraciones Forzadas en el área del proyecto de desarrollo e integración de Mesoamérica* (pp. 69–90). México; Venezuela; Colombia: Red Mexicano de Acción Frente al Libre Comercio.
- Wilson, J. (2013). The Urbanization of the Countryside Depoliticization and the Production of Space in Chiapas. *Latin American Perspectives*, 40(2), 218–236.

- Wodak, R. (2001). The Discourse-Historical Approach. In *Methods of Critical Discourse Analysis* (pp. 63–94). 1 Oliver’s Yard, 55 City Road, London EC1Y 1SP United Kingdom: SAGE Publications Ltd. Retrieved from <http://knowledge.sagepub.com/view/methods-of-critical-discourse-analysis/n4.xml>
- Wolford, W. (2004). This land is ours now: spatial imaginaries and the struggle for land in Brazil. *Annals of the Association of American Geographers*, 94(2), 409–424.
- Wood, D. (2010). *Environment, Development and Growth: US-Mexico Cooperation in Renewable Energies*. Washington, D.C.: Woodrow Wilson International Center for Scholars.
- Wood, D., Medecigo, S., & Romero-Hernandez, O. (2012). *Wind Energy Potential in Mexico’s Northern Border States*. Washington, D.C.: Woodrow Wilson International Center for Scholars.
- World Commission on Environment and Development. (1987). *Our common future*. Oxford ;New York: Oxford University Press.
- Zibechi, R. (2012). *Territories in resistance : a cartography of Latin American social movements*. (R. | Ryan, Trans.). Oakland, Calif.: AK Press.
- Zografos, C., & Martínez-Alier, J. (2009). The politics of landscape value: a case study of wind farm conflict in rural Catalonia. *Environment and Planning A*, 41(7), 1726 – 1744.