Chapter 13

Emitting Inequity

The Sociopolitical Life of Anthropogenic Climate Change in Oaxaca, Mexico

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Introduction

During the last century and a half, human industrialization practices have increased atmospheric concentration of carbon dioxide by 40 per-cent. This CO_2 increase has resulted in a rise in global average surface temperature by 1.4 degrees Fahrenheit, which has led to warming oceans, rising sea levels, and a decline of Arctic sea ice (National Academy of Sciences and the Royal Society 2014). In Mexico, the Secretariat of Environment and Natural Resources has cited the Intergovernmental Panel on Climate Change's (IPCC) fifth report, claiming that anthropogenic climate change has raised the temperature of oceanic waters surrounding the country by 0.79 degrees Fahrenheit in their first seventy-five meters of depth. Additionally, global warming has caused the formation of an area referred to as "the warm pool" close to Mexico's shorelines, where seawater temperatures average 78.8 to 80.6 degrees Fahrenheit (Ponce 2013).

Rising average global temperature, warming ocean waters, and melting ice caps are creating conditions for some parts of the planet that will cause a greater frequency of severe hydrometeorological hazards (e.g., hurricanes, cyclones, tornados, extreme precipitation levels) while triggering drought in other parts; these patterns will threaten human life, infrastructure, and food security. In other instances, rising sea levels, when combined with development-related coastal loss, will force populations to relocate, causing significant societal upheavals. Mexico's federal government has been internationally celebrated for its official recognition of an-

thropogenic climate change and its move to create a policy framework to mitigate it. In 2012, during the presidency of Felipe Calderón, the Mexican Congress approved the General Law of Climate Change and endorsed the creation of the National Institute of Ecology and Climate Change (INECC).

The General Law and INECC joined existing efforts to promote renewable energy megadevelopment projects that would both help to reduce CO_2 emissions and act as an economic booster in historically marginalized areas. These mitigation and development projects were conceived and implemented through partnerships between federal and state government agencies and multinational energy companies that featured capital investments from Mexican and European players. Furthermore, the projects were conceived within a capitalist framework in which their success was primarily measured through their ability to replicate financial capital, thereby exemplifying green neoliberalism.

In this chapter, we show that, while anthropogenic climate change is a tangible and empirically observable phenomenon (what we call its material life), it is also something that has a sociopolitical life—that is, the varying ways people define climate change as a problem and imagine responses to it. What is more, while anthropogenic climate change's material life has deleterious environmental and societal impacts, so might its sociopolitical life, depending on who is imagining responses to it and how. We also show how ethnographic methods provide a means of documenting the latter and devising policy recommendations that may mitigate these undesirable secondary effects of climate change mitigation. Additionally, we explore how the ethnography of climate change mitigation programs provides data that helps us test a number of assumptions of social theory concerning risk and epistemic and social change.

Background: Climate Change and the Social Theory of Governance

Over the course of several publications, Michel Foucault (1978, 2004) made the case that, beginning in the eighteenth century, Western Europe witnessed a transformation in the ways people imagined the responsibilities of government and sovereign power. Foucault's argument went something like this: unlike the Middle Ages, when sovereigns considered the upkeep, protection, and growth of their estates as their primary responsibility, the late eighteenth century saw the emergence of the care of human populations as biologically living entities as the primary preoccupation of monarchs and governments. This shift in the sovereign's object of concern enabled the rise of a collection of "sciences of man" (e.g., public health,

economics, urban planning, anthropology) that focused on the creation of a milieu where human populations could thrive as primarily biological and economic beings (Foucault 2004; Rabinow 2005). Foucault named this emergent modality of power "biopolitics."

The emergence of "man" as an object of concern of the human sciences was roughly contemporaneous with the development of economic liberalism and modern epistemology; the latter being a technique of knowledge making that, according to its practitioners, allowed them to objectively engage the material world by separating objects (things in and of themselves) from subjects (cultural values). Many proponents of modern epistemology claimed it was a mechanism of knowledge production that surpassed "nonmodern" or "primitive" epistemologies whose access to facts and objective reality was inhibited by culturally specific beliefs. An example of ways of knowing and relating to the material world that have been called "nonmodern" is the manner in which many Australian Aboriginal people have historically spoken about human-environment relationships (Povinelli 1995). In the Aboriginal perspective, animals and prominent features of the landscape such as water holes are considered to be sentient and capable of communicating with a divine force called the Dreaming, which precedes the creation of the world and humans. In Aboriginal epistemology, people must relate to the world according to specific ritual and ethical prescriptions, and their failure to do so may be communicated by nonhumans to the Dreaming, which may then enact retribution against people for their transgressions (Povinelli 1995).

Anthropologists have often classified epistemological practices like those of Australian Aborigines as animism, and the anthropological record suggests that similar (but also locality-contingent) ways of speaking about and relating to the material world existed among pre-Columbian populations in the Americas. As far back as 1800 BCE, Mesoamerican (the culture area that manifested across much of today's Mexico and Central America) people upheld the view that the land was part of a supernatural creature that combined reptilian, avian, and feline features, and this mythological "earth monster" also acted as a portal to the spiritual realm of deified ancestors. More recent anthropological case studies of indigenous communities involved in renewable energy projects in Mexico demonstrate that, in certain instances, indigenous people continue to consider deities to be the ultimate owners of the land (Cruz Rueda 2013). Just as in the case of Australian Aborigines, there is a robust ethnographic record that demonstrates Mesoamerican people related to—and, in some instances, continue to relate to—the material landscape not as a thing in itself but as something that was simultaneously material and sacred that required the observation of ritual and ethics when interacting with it.

From the perspective of modern epistemology, the ways Australian Aborigines and pre-Columbian Mesoamericans relate to their environments are expressions of culturally particular beliefs but not matters of fact that transcend their cultural context. A critical reader may suggest that we are conflating cosmology and epistemology, and that the ways indigenous populations and modernist thinkers engage and interpret their surroundings are qualitatively different in a number of key regards. Our argument here, however, is that while practitioners of modern epistemology claim to be able to see the world objectively, they are, in fact, doing things very similar to what Australian Aborigines do when they speak about their human environment relationships; that is, connecting elements of the material world with culturally specific values, meanings, and ethics (see Latour 1993). The power of modern epistemology, then, lies not in being different or superior from "nonmodern" ways of seeing (i.e., cosmologies), speaking about, and relating to the world but in doing the same things while claiming not to (Haraway 1997; Latour 1993). As a number of social scientists and philosophers have observed, cultural values enter the spaces of modern knowledge making (e.g., laboratories) in the form of gender roles, capitalist cost-benefit analyses, copyright laws, ethical guidelines, legal restrictions on experiments, strategic interests of national funding agencies, and local cultures of scientific knowledge making (Franklin 2005; Haraway 1997; Pickering 1995; Latour 1993).

Modernist epistemology is kindred to economic liberalism, which promotes the obliteration of cultural value systems involved in "nonmodern" human-environment relationships in order to make "natural resources" (things in themselves) available for exploitation, extraction, and eventual destruction in the industrial production process. For some anthropologists involved in studies of human ecologies, the emergence of modernist epistemology—which is traced to Robert Boyle's development of the scientific method (Shapin and Shaffer 1985)—is a pivotal moment in the history of human-environment relationships (Descola 2017). Having said this, we also want to clarify that we do not intend to reiterate a narrative that romanticizes "nonmodern" Mesoamericans and Australians as "noble savages" or "ecological Indians." In Mesoamerica, there are examples of historical moments when indigenous populations overtaxed their environments, leading to periods of socioenvironmental crisis. Such was the case of the Central Maya Lowlands in the tenth century CE. Furthermore, Mesoamerican state societies of the second through fifteenth century CE featured economies where material goods were produced and traded at a large scale in market networks that extended from North to South America. At the same time, not all indigenous communities engaged in the same practices of state and economy building, and, in some cases of socioenvi-

ronmental collapse (as in the Central Maya Lowlands), the archaeological record shows a transformation of social organization toward village-level life that was less taxing of surrounding environments.

The era of European colonial expansion laid the groundwork for the dramatic global environmental transformations that economic liberalism and modern epistemology made possible. In the region that is today's Mexico, sixteenth-century colonization involved the radical transformation of agricultural production systems and environmental stewardship practices on the part of the indigenous state societies and communities that populated the area (Carmack 2006; García-Acosta 2002, 2018). In the Valley of Mexico and Mesoamerica in general, Iberian colonizers displaced indigenous populations from agriculturally productive lands, interrupted indigenous watershed management systems, introduced cattle ranching, and forced indigenous communities to pay tribute and donate labor to the large estates of newly arrived Iberians (García-Acosta 2002, 2018). The result was a socioenvironmental cataclysm that claimed up to 90 percent of the indigenous population in the Americas during the first half of the sixteenth century. Following the end of the colonial era, Mexico and Central America would witness the introduction of liberal reforms during the late nineteenth century. These reforms were intended to drive economic development by incentivizing the exploitation of indigenous labor and the large-scale cultivation of export crops whose international trade would plug the region into a growing global network of capitalist extraction, production, and circulation (Dore 2006).

Modern epistemology and economic liberalism promoted the dismissal of "nonmodern" human environment relationships that prevented the large-scale extraction of natural resources and the reorganization of communities and populations for the production of export crops and, later on, industrialization. It was this "unleashing" of natural and human resources (i.e., human labor power) from the burden of "traditional" thinking that enabled the environmental destruction (species extinction, deforestation, toxic pollution, rising average global temperatures) that some scholars and environmental activists have termed the Anthropocene (Descola 2017; García-Acosta 2017).

Another scholarly concern related to our analysis is the transition of biopolitical states from what Ulrich Beck called scarcity societies into risk societies during the nineteenth and twentieth centuries (Beck 1992; Collier and Lakoff 2015). As we noted above, the biopolitical state considered the care of the biologically living human population to be its primary preoccupation. Furthermore, economic liberalism came to be seen as one of the key mechanisms through which to provide the resources and commodities necessary to nurture biopolitical societies (Smith 1999). According to

Beck, the key preoccupation of biopolitical states during the nineteenth and early twentieth centuries was the distribution of scarcity. By scarcity distribution, Beck meant the making of decisions dealing with the distribution of limited resources and the means to access these resources (e.g., food, shelter, wages). Through the combination of technological "innovation" (e.g., the green revolution, Fordian mass production) and strategic alliances between "first, second, and third world" nations for the procurement of natural resources—which often involved the conscious dispossession, marginalization, and exploitation of local subaltern populations—Western European nations and the United States managed to create a situation where scarcity became less and less a concern of the majority of their populations. The era of high modernity had arrived.

In the mid-nineteenth century, modern epistemology and economic liberalism seemed to be making good on their promises (at least for the portion of the global population that benefitted from them), but there would soon be signs that something was amiss. Atomic energy, for example, was a technoscientific innovation that the modern biopolitical nation-state made necessary, and which seemed boundless in its application (Masco 2006). The atomic bomb offered to protect the national population from foreign aggression through the threat of mutually assured destruction, while nuclear power production seemed to provide limitless energy to drive industrialization. Nevertheless, physicists involved in open-air atomic testing eventually discovered the effects of radioactive fallout, giving rise to antinuclear proliferation movements (Masco 2006). In the early twentieth century, prior to the development of atomic power, hydrocarbon extraction and consumption also seemed to offer a vast source of energy to drive industrialization and satisfy the needs of scarcity societies, but the global environmental monitoring technologies and consciousness sparked by nuclear proliferation also allowed scientists and the public to begin to recognize the effects of carbon dioxide emissions on the planet's climate (Masco 2009).

In a similar manner, the green revolution promised to eradicate world hunger (another key concern of the scarcity society) through the development of chemical fertilizers, pesticides, genetically modified crops, and industrialized agriculture. However, the public would eventually be forced to wrestle with the dangers some of these technologies posed to human health and environments: toxicity, reduced soil fertility, decreased biodiversity (Fortun 2001). The unexpected consequences of the technologies and practices that economic liberalism deemed necessary and that modern epistemology made possible brought about a transition from the scarcity society to the risk society (Beck 1992). In the risk society, Beck argued, concerns with the distribution of scarcity became overshadowed

by concerns with the distribution of risk; that is: who should suffer the effects (toxicity, radiation, and now climate change) of industrialization and modernization? Beck, of course, was writing about the risk society in the mid- to late 1980s, before anthropogenic climate change became a matter of extensive academic and public concern. However, we find it reasonable to list anthropogenic climate change as one of modernity's unexpected emerging risks.

But Beck's preoccupations about risk were not without hopeful hypothesizing for the future. One of the central arguments of *Risk Society* was that, because the risks of modernization (toxicity, radioactivity) were not restricted by national borders, the risk society would give rise to a new social movement—which he referred to as a novel form of cosmopolitanism—that cut across lines of class, race, and national identity as people mobilized to address the socioenvironmental challenges of the time. It is in this optimistic theorizing that we also see another convergence between Beck and Foucault. While Beck anticipated the emergence of a transnational environmental cosmopolitanism, Foucault limited himself to hoping that the epistemic object of "man," which he saw as the culprit of biopolitical violence (i.e., wars in the name of nationalist causes, the sacrifices of people, livelihoods, subjectivities, and nonmodern epistemologies for the sake of modernization and biopolitical well-being) would one day vanish and be replaced with another less virulent organizing *logos* (Foucault 1970).

Mexico and Anthropogenic Climate Change

In what follows, we examine how public-private partnerships between state agencies and renewable energy companies organized as a response to anthropogenic climate change in Northern Latin America (the Isthmus of Tehuantepec in Oaxaca, Mexico, to be exact) provide us with a fruitful context for testing Foucault's and Beck's hopeful hypotheses concerning cosmopolitan environmentalisms and the vanishing and emergence of epistemic objects (*logoi*). We make the case that anthropogenic climate change, in addition to being a scientifically documentable material phenomenon, is something that also has a sociopolitical life; moreover, as part of this latter life, it exists as a phenomenon of discourse and the imagination and, in this latter dimension, takes shape as a situated cultural form subject to interpretation and reconfiguration. Furthermore, the imaginary and discursive manifestations of anthropogenic climate change are not separate from the realm of social theory. Key thinkers such as Beck and Foucault, who were primarily concerned with crisis and modernization

(i.e., biopolitics, scarcity and risk societies), imagined specific hopeful futures for humanity whose realization, we insist, should not be treated as a certainty but as tenuous hypotheses that must be tested against the ethnographic record of how people, corporations, and governments are currently responding to global environmental change.

The analysis that follows focuses specifically on a small Zapotec town in the outskirts of the city of Juchitán, Oaxaca, Mexico, where a number of multinational renewable energy companies have worked in collaboration with the Mexican government to develop a number of large-scale wind turbine energy production projects. We have chosen to rename this town with the pseudonym Binnizá, which is the Isthmus Zapotec name for their people, to protect the identities of our interlocutors. In this particular case, we show how, in the context of anthropogenic climate change in Northern Latin America, responses to the risks engendered by modernization are neither leading to the emergence of a transnational environmentalist cosmopolitanism nor featuring a vanishing of biopolitical *logoi*, whether that be "man" or capital. Instead, our ethnographic research indicates that this particular response to anthropogenic climate change is having the effect of increasing socioeconomic inequity among populations directly affected by mitigation programs such as renewable energy megadevelopment projects. Furthermore, our data demonstrates how such megadevelopment projects do not occur within a historical vacuum but manifest in a context of colonial and postcolonial governance that is permeated with overtones of ethnicized and classist discrimination. Finally, in the case of Mexico, large-scale private-public partnerships meant to respond to anthropogenic climate change do not feature a vanishing of "man" as an epistemic object or a dismantling of the biopolitical state. Instead, what we see is a continuation of large-scale energy production whose biproduct is not radioactivity or carbon dioxide but ethnicized inequity. While the scarcity society may have evolved into the risk society, we close by arguing that the risk society is currently morphing into the inequity society at the loci of renewable energy megadevelopment.

Before the Turbines

The Isthmus of Tehuantepec is no stranger to development projects or to external economic forces. Since the colonial era, the region has witnessed multiple attempts on the part of imperial powers and national governments to incorporate it within broader political economic networks. Since the sixteenth century, this part of Oaxaca has been subjected to mining operations focused on mineral extraction, sugar cane plantations, oil drill-

ing operations, hydroelectric construction projects, and now wind turbine installations. Throughout these projects, *Ismeños*—a term used to denote the predominantly indigenous people of the isthmus—have strategically participated in these programs with the intention of maintaining their autonomy and promoting their upward social mobility (Cruz Rueda 2011, 2013; Dunlap 2017; Sellwood and Valdivia 2018).

In the 1990s, the isthmus experienced a series of World Bank, International Monetary Fund (IMF), and US-supported structural adjustment programs and the modification of Article 27 of the Mexican Constitution. The latter altered agrarian land tenure laws to permit the privatization of communal lands known as *ejidos*. The objective of these changes was to make land available for the reproduction of foreign capital (from either other regions of Mexico or international investors) and to transform communal agricultural producers into sources of labor for other industries (Weaver et al. 2012). The structural adjustment economic policies also enforced governmental disinvestment from social programs, deregulation of domestic labor markets, and the privatization of most state-run industries and *ejido* lands under the justification that such measures would increase competitiveness of commodities in the market and minimize government expenditure (Weaver et al. 2012). The beneficial effects of structural adjustment and the neoliberalization process, however, have not manifested uniformly across communities or among all members of communities in the isthmus.

Not only did structural adjustment programs impose ideas about the "best" economic structure or the role of government, they also (re)created inequitable relationships between regions, especially with regards to commodity production and labor. With the signing of the North American Free Trade Agreement (NAFTA), for example, the United States became a destination of agricultural products whose export standards could not be met by many small-scale subsistence farmers, effectively excluding them from emerging opportunities for agricultural development. With diminished subsidies to support subsistence farmers, such as the removal of the state-guaranteed price of corn, many saw themselves forced to abandon agriculture and enter the nonagricultural labor force. Unskilled workers and the subsistence and indigenous communities—the same groups prioritized for green neoliberal development—appear to have been affected the most (Nahmad 2012; Babb 2005).

Nevertheless, the current transnational green neoliberal political economy within which renewable energy megadevelopment projects are implemented differs significantly from these antecedent economic transformations. Although the previous projects were also crafted on the basis of neoliberal ideas about development (i.e., promoting concepts such as

individualism, enhancing ability for private investment by allowing the privatization of communal lands with NAFTA, and deregulating protections of the agricultural or mining sectors), many wind turbine projects are sponsored by private international companies that work within the United Nations Framework Convention on Climate Change (UNFCCC) Clean Development Mechanism to incentivize and commodify "green" energy. In this instance, *Ismeños* find themselves in a position where they must negotiate directly with transnational renewable energy companies, something they had not done before during the structural adjustment programs of the 1990s. Official representations of such direct interactions invoke images of equitable partnerships between local communities and energy companies, but our ethnographic experiences indicate that this is not the case and that large power differentials loom over green development encounters. Below, we demonstrate that, unlike the energy produced by wind turbines, the inequities in question do not manifest out of thin air but, rather, are the legacy of colonialism and postcoloniality in the Isthmus of Tehuantepec.

The Struggle for Equity and the Imagined Subjects of Green Development

Chester Karrass earned an MBA from Columbia University and touts himself as the creator of "the most successful negotiation seminar in the United States." On the website he uses to promote his business, he claims forty-five years of experience delivering seminars that arm their participants with an unmatchable "negotiation arsenal" and professes to have trained more than one million professionals, including "salespeople, buyers, corporate leaders, managers, engineers, financial officers, CEOs, and international business people." Karrass would be inconsequential to our discussion of aeolian projects in Mexico were it not for the fact that he wrote a book titled *"In Business as in Life—You Don't Get What You Deserve You Get What You Negotiate."* We begin this section with this reference to Karrass because his seminars and book title propagate a fantasy about business, development, and negotiation in which all people, regardless of gender, class, ethnicity, and race can become equally competent negotiators. The case of Binnizá, on the other hand, shows how colonial and postcolonial legacies of ethnicization and racialization of indigenous communities continue to haunt green megadevelopment projects meant to mitigate climate change.

In 1990, Mexico ratified the International Labor Organization's Indigenous and Tribal Peoples Convention, 1989 (no. 169). The purpose of the

convention was to guarantee the right of indigenous communities to assume control of their own institutions, ways of life, and economic development and to maintain and strengthen their identities, languages, and religion (International Labor Organization 1989). The convention recognized that, in many parts of the world, indigenous communities do not enjoy fundamental human rights to the level guaranteed to other sectors of the population of the nation-states they live within and that their own laws, values, and customs have often deteriorated. Article 15 of the convention indicates that rights of indigenous peoples to the natural resources of their lands are to be protected, and that these rights include participation of indigenous communities in the use, administration, and conservation of such resources. Furthermore, in the case where nation-states maintain mineral rights or rights over other resources present on indigenous lands, state governments must establish or maintain procedures focused on the consultation of the affected indigenous communities with the ends of determining whether and how their interests will be negatively affected prior to authorizing any prospecting or exploitation project on their lands. Finally, affected indigenous people must partake of development and extraction projects and receive equitable compensation for any harm suffered as a result of such activities (International Labor Organization 1989).

The establishment of large-scale transnational investment in wind turbine farms in the Isthmus of Tehuantepec dates to the first decade of the twenty-first century, and Binnizá became involved in this megadevelopment program once again in 2014 when it was approached by Eólica del Sur (a multinational renewable energy company supported by Japanese and Mexican investors) for the construction of wind turbines distributed over a space of two thousand hectares. Because Binnizá is recognized as a Zapotec indigenous town and because of Mexico's ratification of Convention 169, negotiations between Eólica del Sur and Binnizáleños had to be conducted via a consultation process. The consultation involved the creation of a council that featured representatives of all three levels of Mexican government (federal, state, and local), energy companies, and local property owners. While Article 15 of Convention 169 is designed to guard over the rights of indigenous communities in the execution of extractive projects, state and energy company officials proceeded in a manner that focused on the rights and compensation of individual landowners, not the community as a whole. The company intended to financially compensate only those people upon whose land wind turbines were installed, effectively excluding both nonlandowning Binnizáleños and landowners whose lands were not directly affected by the project.

Social inequities were certainly present in Binnizá prior to the execution of the wind turbine project, but property owners were apprehensive about

the social tensions the inequitably distributed influx of wealth would have upon the town's sociopolitical life. Consequently, landowners used the consultation process to request that state and energy company officials add a community benefits packet to their compensation. Among their requests, they asked that their community health center be updated with the purchasing of diagnostic equipment to help facilitate and expedite town residents' navigation of the national healthcare system, the updating of the town's water drainage system, and the yearly donation of two million pesos to community education, culture, health, and sports programs. State and company authorities agreed to these requests, and the council mandated the creation of a follow-up and monitoring committee to ensure that all parties met their obligations. However, government officials later scrapped the plan to place more diagnostic equipment in the community health center because the community did not have "sufficient need" for such an investment as determined by the low levels of community members on the state-sponsored insurance program Seguro Popular.

The completion of the initial consultation process, however, was not without tension. Binnizáleños involved in the negotiations like Don Eugenio Sanchez recall numerous instances when negotiations between Eólica del Sur and property owners broke down, leading to protests and blockades that impeded access of energy company staff and workers to the project site. The first of these instances was when Binnizá residents discovered that, after agreeing to a specific compensation per wind turbine installed on their lands, Eólica del Sur was paying a much higher sum to property owners in nearby Juchitán. Don Sanchez recollects:

> We accepted the original terms because we wanted to be part of the project. But when we saw what the property owners of Juchitán had asked for, we said, "Well, we were either dumb or we want this to at least have a little business," but in reality, we're not gaining very much. So we decided to protest, and the council representatives would not come. So we complained to the governor, we complained with everyone, and they would not pay any attention to us, but we kept going and going. When they felt pressure because we took action through different means [blocking access to the project site], they finally came. The president of the council came, who was another representative of the governor, the company, the secretariat of SEMARNAT [Secretariat of Environment and Natural Resources], and two or three more came from human rights . . . they came to tell us that, because we had already said that what they had given to Juchitán they had to give us as well, that it didn't matter, it was not a part of the original agreement, but we believed we could come to a new agreement, that was what the council was for, to protect us from the company, to make sure negotiations took place on a neutral ground. "It is wrong," we said, "you are giving forty over there and here you are giving five here, you have to give forty here as well." (Ethnographic interview, 2019)

In the preceding interview excerpt, Don Eugenio recounts how Binnizá's residents felt betrayed by state representatives who staffed the consultation council since Binnizáleños expected them to look after the interests of indigenous community members and to ensure that all negotiating actors engaged one another on a level playing field. Instead, state representatives who were privy to the agreements reached in nearby Juchitán knew very well just how much the energy company was willing to give but left Binnizáleños to their own devices during the negotiation process, which resulted in their settling for much less than they could have. Once Binnizáleños discovered just how much Juchiteco landowners had gained, they attempted a number of strategies to renegotiate their compensation, their idea of fairness being based on the notion that all should receive equal compensation in both Juchitán and Binnizá.

Binnizáleños' initial attempts to resolve the matter amicably were ignored by state authorities, forcing them to take more drastic means like blocking the roads leading to the project site and bringing the installation of wind turbines to a halt. Although Binnizáleños were successful in renegotiating their agreement, they felt the process was not managed in the way stipulated by Convention 169. They felt state representatives were looking out after the interests of the company and not their community. Furthermore, the negotiation process was not one of partnership between the energy company and the community. Instead, the process was organized around the antagonistic principle of "you get what you negotiate," leaving communities to individually battle both the company and state officials for compensation.

The struggle to gain compensation equal to that of Juchitán, however, was not the end of Binnizáleños' tensions with the power company and state government. The installation of wind turbines was to take place on agricultural lands, which required the company to pay a tax to the town's local government for the change of soil use from agricultural to industrial. The municipal president at the time negotiated an amount that landowners considered dismal (3.5 million pesos). The project was deployed over two thousand hectares of land, but the president and company agreed that a tax would only be paid for each eight-square-meter area covered by the bases of the turbines. Once again, the landowners attempted to amicably resolve this matter with state government and the company through talks, but they were once again ignored, pushing them to carry out yet another blockade and halt the construction project. In this particular instance, their efforts proved futile, and the tax amount was not changed.

In the years that have followed the initial consultation, landowners have experienced unexpected impacts of the wind turbine project. The installation of turbines required the building of raised roads that dissected

agricultural fields and disrupted water drainage and irrigation patterns. Some fields now flood, while others receive insufficient amounts of water. Landowners also feel they were misled about how much noise the wind turbines would actually produce. Company representatives claimed the wind turbines would make no more noise than a house fan, but landowners disagree. Other complaints on the part of landowners include the incorrect reinstallation of fences that were taken down during wind turbine project and the inadequate replacement of native varieties of trees with cheaper non-native species.

The Temporality of Consultation

From the perspective of Binnizáleños, the process of consultation should be open-ended, allowing them to renegotiate with the state and energy company, especially when unexpected environmental impacts like the disruption of irrigation systems manifest themselves. From the perspective of company and state representatives, the temporality of the consultation is much more limited and ends with the agreement that precedes the initiation of wind turbine construction and installation activities.

In summer 2019, this difference of opinion on the temporal parameters of consultation came to a head during a meeting of the monitoring and evaluation committee that included state and company representatives and landowners. On this occasion, government representatives ran late to the meeting, allowing for landowners to begin an informal conversation with company representatives about their concerns with environmental impacts (disruption of irrigation systems, wind turbine noise, inappropriate replacement of fences and trees) that were not taken into consideration during the initial consultation. Additionally, landowners wanted to request the completion of a baseline soil study to help monitor changes in their lands over the coming decades. At the beginning of the meeting, landowners reintroduced these problems in front of the committee, also demanding an update on a previous agreement allocating state, federal, and company investment for the local outdated drainage system. State representatives responded that these issues were outside those listed in the original consultation, the consultation process had ended with the signed agreement between the landowners and the company, and that it was not to be extended after that, to which the landowners replied that the consultation process had prescribed the creation of a monitoring and evaluation committee that would continue to operate throughout the life of the project, and that these were matters of such a committee's concern.

The landowners requested time be allotted within the meeting's agenda to discuss their concerns, but the representative of the Secretariat of Energy (SENER) objected that such an alteration of the agenda was illegal and corrupt, leading to the property owners walking out of the meeting. With the landowners gone, company and state representatives exchanged stories that depicted Binnizáleños as irrational, corrupt, and inhumane, and complained about locals impeding progress for the state, the nation, and the region. The first story told by a company engineer detailed the case of a landowner from Juchitán who demanded his son be given a job he was not qualified for at the energy company. When the company refused to hire the landowner's son, he blocked the company's access to his land, delaying the installation of some wind turbines. While the company could still conduct its installations on other lands, they opted to hire the landowner's son anyway to diminish tensions with the locals. The point the company engineer wanted to make was that locals were nepotistic, corrupt, and irrational, but it is noteworthy that he used a story about a landowner in Juchitán to express his frustration with landowners in Binnizá, where residents pride themselves in being different from Juchitecos.

A second story told by the engineer did feature events that unfolded in Binnizá. In this second case, the story focused on one of the blockades organized by landowners to exert pressure on the company and state to renegotiate the consultation agreement. The landowners strategically blockaded a substation where energy is fed from the turbines before being exported off-site. There were four company workers at the substation, and one of them was the son of a local landowner. The company knew of a way out of the property that could avoid the blockade, but they did not want the landowner's son to know which route they were taking. Company managers decided to evacuate the other three workers but chose to leave the landowner's son behind for fear he would later reveal their route. The landowner's son was forced to spend four days by himself at the substation without proper sanitation or living conditions. For the company engineer, this case illustrated the inhumanity of Binnizáleños. It is interesting, however, that the engineer chose to pass moral judgement on Binnizáleños for this worker's hardship and not on the company that refused to negotiate with the landowners or ensure the well-being of all its workers equally, regardless of their place of provenance.

After the meeting, Pablo Torres, one of the Binnizáleño landowners, offered his interpretation of what had occurred. He claimed the reason state officials denied their request and accused them of corruption was because the property owners showed up in their traditional sandals and not in suits. Thus, he called attention to the way indigeneity is indexed in this part of Mexico through dress and bodily dispositions and how Bin-

nizáleños' refusal to subject themselves to hegemonic mestizo ideologies of professionalization led the officials to dismiss their requests for further environmental monitoring.

Development and Inequity

In the preceding ethnographic examples, we have shown how the wind turbine project (designed as a means to mitigate climate change) threatened to exacerbate inequities between communities. For example, the attempt to negotiate different compensation packages for Juchitecos and Binnizáleños would have had the effect of enriching some landowners in the region much more than others. Binnizáleños, in contrast, advocated for equal treatment among landowners across communities, insisting that Juchitecos and Binnizáleños should receive equal compensation. But development projects (even ones with the beneficial purpose of reducing carbon emissions), as they have been conducted in the isthmus, promote inequity not only between communities but among community members themselves. Binnizáleños are acutely weary of the creation of inequity, and although they are not opposed to seeking the improvement of their families' standard of living, they also recognize that the gross socioeconomic disparities create sociopolitical tensions. Consequently, Binnizáleños constantly struggle with the tension between personal socioeconomic advancement and the social deterioration that pronounced inequities create.

Binnizáleños often trace the rise of prosperity in their town to the late 1960s and 1970s, but they also recognize how such prosperity increased inequity. During this time, hydroelectric projects were bringing state investment into the region, and a significant number of Binnizáleños began to seek socioeconomic advancement through education. Originally a Zapotec-speaking town, many Binnizáleños experienced discrimination and suppression of their native language in public schools. Nevertheless, many town residents successfully navigated the educational system, became professionals, and brought a positive reputation to the town as a place of learned people. However, one of the deleterious impacts of this rise to intellectual prominence was the abandonment of the Zapotec language, which many Binnizáleños lament today. Over the course of an ethnographic interview, Don Oscar Ramos, the municipal president, explained how relationships among community members changed over the years:

> Look, Binnizá is a very young town. If you compare us to Ixtaltepec, Juchitán, with other towns around Binnizá, it is a distinctly young town. Binnizá had a

> very big development in the last thirty years. A lot of development. The previous generations were dedicated to agricultural labor, to planting, to raising cattle, that's what they were dedicated to. But there was a generation of Binnizáleños who left to study and returned with knowledge, with preparation, and thus began to organize the people. And, for example, the baseball stadium, the sports units, the streets, the drainage system, it was done through *tequios* [indigenous communal labor practices], because there were not many resources. Then, they would arrive prepared and say, "Let's get people together, let's do this," and people would cooperate more. Now when resources [money] are involved . . . because there are resources now, that's the conflict. Many say, "Ah well, if there is money, I have a construction company friend." Right now, we have twenty million pesos that we can't use because [the committees of property owners] are fighting over it. (Recorded interview, July 2019, translated from Spanish by author)

Don Oscar, like several other town residents, stressed the negative impact of economic incentive. Describing how tensions arise among Binnizáleños over how to use the social resources from the turbine project, he juxtaposes how projects were executed through the institution of *tequio* in the past and vocalizes a sense of social disintegration that he fears has occurred over time. Before, he stresses, Binnizá was more "united, without knowledge, but they were united. . . . They went to study and came back with knowledge, so they continued to do *tequios,* but now with the generated knowledge" (recorded interview, July 2019, translated from Spanish by author).

The term *tequio* refers to a form of communal volunteer labor characteristic to the isthmus that was nostalgically invoked by many Binnizáleños when comparing how things were in the past to how things are today in the town's consumer economy. People would congregate upon request for a given period of time to complete a task, whether it be preparing for a party or wedding, building a house, or undertaking larger projects for the community, without economic compensation—although food may be shared as a token of gratitude for their work. Most importantly, many Binnizáleños considered participation in *tequio* as a key ethnic identity marker.

During the late 1960s and 1970s, when the first generation of Binnizáleños left to study, the federal government made obtaining a secondary level of education mandatory. This was not enforced in many parts of the isthmus, as children were needed to help their households with agricultural labor. In Binnizá, however, the requirement was enforced, and parents who did not send their children to school were liable to legal penalization. Unfortunately, once at school, Binnizáleños were exposed to negative conceptualizations of indigeneity. Specifically, speaking Zapotec was banned, and corporal punishment was used to enforce this rule.

Spanish was promoted as the primary language, and Binnizáleños struggled with the ability to be able to fully express themselves in the hegemonic language. Don Ricardo Peralta, a Binnizáleño who lived through this, explained:

> This is what we struggled with in school, we couldn't express ourselves what we knew, those who didn't know Spanish. Little by little, this gave, from the studies, the school, there were these changes. (Recorded interview, July 2019, translated from Spanish by author)

Consequently, the succeeding generation of Binnizáleños did not teach their children Zapotec and instead promoted Spanish within their own households. Those who went on to receive higher education were further pressured to "act like a professional," a phrase that was permeated with ethnocentric assumptions that portrayed mestizo cultural practices as professional attributes. These hierarchies of ethnicity and culture, and the trauma that accompanied them, became the backdrop of power relations against which the negotiation of climate change mitigation programs like the wind turbine project took place.

When individuals left to receive a formalized education, they were seen as bringing "modern knowledge" back to the community, allowing them to progress, "or catch up to" the rest of the nation, in a socioeconomic sense. Indeed, in past development projects, the community remembers not being able to defend themselves as equals among developers to receive the best benefit for their community, because they lacked this "knowledge" of both "how things should be done" and how to do it. The municipal president explained:

> There is a characteristic of Binnizá, in that it has developed a lot. [Binnizá] is very interested that its people prepare themselves. We have many people who are very prepared here in Binnizá, who are in many parts of Mexico with good foreign education as well. People who went abroad to study as well. We have researchers abroad who are originally from Binnizá, so Binnizá is characterized by this . . . being a town of many professionals [as compared to other towns in the Isthmus] . . . but this was created by a generation of Binnizáleños who were attracted to go out and study. (Recorded interview, July 2019, translated from Spanish by author)

During the 1960s and 1970s, Mexican state officials considered this part of the isthmus to be a backward area mired in indigenous "traditionality" and hoped to formally incorporate it into a modern capitalist consumer economy. Therefore, not only did students learn how to benefit from the national market economy as professionals, they also attempted to counteract the ways the region had been historically neglected by the Mexican

federal government. Combining their newfound knowledge of how to develop infrastructure with a sense of communal obligation, they worked to make Binnizá the center of "modernity" in the isthmus, which accounts for a willingness of town residents to participate in climate change mitigation programs that have global relevance. However, this process of grassroots modernization also propagated deleterious ideas about indigeneity, influencing many families to suppress Zapotec language as well as several other activities considered indexical of indigeneity (e.g., agricultural livelihoods, foodways). Therefore, subsistence agriculture was traded for cash crops among property owners, and being a *campesino* (person of the fields) came to be seen as a livelihood strategy of the past.

More recently, following indigenous revitalization movements over the last decades, Binnizáleños have worked to redefine professionalization in a way that does not exclude indigenous identity markers. Some town residents focus on the resurgence of the Zapotec language as a key to accomplishing this. As Don Ricardo Mora explained:

> Ah no, it's bad! I want my grandchildren to speak Zapotec. Well, since we lived in a different situation [where speaking Zapotec was denigrated], and for example, if you go to a town close to here, and see the little ones, they are speaking in Zapotec! And to see them, how delightful to hear them! [smiles wide] And [the young Binnizáleños] do not want to.

Don Ricardo is not the only one to feel this way. In fact, some Binnizáleños see Zapotec language suppression as violence against their community. Alberto Rosas, a schoolteacher, explained that, although these social changes began with the agro-industrial transformation of the 1960s and 1970s, they were exacerbated by the current wind turbine projects that enhanced inequity through the exclusion of non-landowners from the lion's share of the compensation money that flooded the region. He describes how those who have disproportionately benefitted from the wind turbine projects manifest a sense of superiority:

> And now the people who work in the wind farms, that generation of the wind turbines, is a generation of the worst of the worst, by the simple fact of working there, they feel great, arrogant. The kids come back to be drug addicts, alcoholics. Vanity, it's a terrible life. Without values, principles, and nothing, they live off wealth, and they come with the illusion they are superior to us, for the simple fact of working [for the energy companies], but there is no identity, they have no identities. (Recorded interview, July 2019, translated from Spanish by author)

When asked why the wind turbine projects have produced this kind of entitlement, Don Alberto explains that it is because the project's ben-

efits are only enjoyed by a small sector of Binnizáleños and that social gaps have grown in the context of green megadevelopment. He insists that the growth of inequity occurs because the turbine projects do not take the social into account and do not focus on the creation of generalized well-being. For example, focusing primarily on the compensation of property owners effectively relegates a large swath of the population to a subordinated socioeconomic status. Don Alberto sees the social transformations beginning in the 1970s as intimately related to what is manifesting currently. For the good of his community, he is adamant that the social must be attended to in green megadevelopment projects and that communal well-being must also be taken into account if these projects are to be beneficial for all.

Although landowners attempted to mitigate the inequity created by the wind turbine project through the creation of a community benefits packet, this packet does not counterbalance the notable increase in revenue they are experiencing in comparison to other community members. Furthermore, the socioeconomic transformation brought about by the turbine projects is bringing new social pressures that are driving further cultural change. The school system, for example, has now required students to learn English as a foreign language that will allow them to be competitive in the eco energy economy. For those looking to become involved in the green energy projects, learning English is desirable because it is the language used for instruction manuals. Scarú Aguayo, a senior in high school, commented that the problem is not that her peers do not want to learn Zapotec but that they have no time to do so in their preparations to be competitive in the new labor market.

Living in the Margins of the Green Economy

Antonio Ruedas is a recent migrant to Binnizá from La Ventosa, another nearby town, who elaborated on the arbitrary representation of indigenous identity, language, and subsistence agriculture as an anachronistic vestige of the past and on the idea that speaking Spanish (and now English) and participating in the national (and now transnational) economy was the future. He learned Spanish approximately two years before our ethnographic study, but because he had previously worked as a mechanic, he was able to work for the energy company motor pool when the turbine projects arrived in La Ventosa. However, he saw his Zapotec monolingualism as a hinderance and did not want his children to learn his heritage language. During the first six years of his children's lives, he did not communicate directly with them. Instead, he relied on their mother

to serve as a translator. Even though speaking Zapotec was the norm in La Ventosa at the time, he feared learning the native language would inhibit his children's socioeconomic advancement. With tears in his eyes, he spoke proudly of his success in incorporating himself into the green economy by getting a job as a mechanic for the energy companies, which has allowed him to construct a house. In July 2019, with the completion of the construction phase, his opportunity to work on the wind turbine projects came to an end.

Another Binnizáleño, Don Miguel Aguayo, pointed out that not everyone in Binnizá had the equal capability to fully participate the new green economy. Once a family of subsistence farmers, his parents emigrated from a smaller community in the western part of the isthmus fifty years ago due to increasing hardship. Nevertheless, he considers his family almost *originarios* (original residents) of Binnizá instead of migrants. Don Aguayo notes that his parents thought there was more opportunity in Binnizá, but he observes that, unless you are a landowning "millionaire who had cattle," it was very difficult to advance socioeconomically, and so his father dedicated himself to working as a wage laborer. Describing his father, he says:

> He was always a person who fought a lot; it is on the basis of this effort that they came here looking for a better future, but, well, here, they couldn't "get out" [of poverty]. (Recorded interview, July 2019, translated from Spanish by author)

Don Aguayo describes the difficulty his family had because, although they had emigrated a long time ago, his parents did not have access to formal education and were illiterate. Speaking of himself and his siblings, he explained:

> Us, well thanks to God, we learned something. A little more than them, although we are screwed, we advance a little more. Learn to do other things that they couldn't. (Recorded interview, July 2019, translated from Spanish by author)

Only able to send half of their children to school due to the difficulty to provide for a large family on dismal salaries, his family did not have the same access to resources as other families of professionals. He sees Binnizá as a place for the "rich" and his family having "no future here," as there is a lack of jobs for them to provide for themselves without access to higher education:

> Here in Binnizá there has been . . . there has been a lot of development . . . but there has been a lot . . . a lot of preference for the rich cattle ranchers. As I repeat again . . . here . . . here, the rich monopolize it, the poor are left poor. If

> you imagine that all the help that comes was for the poor, there would be no poverty. We would be more or less the same, but ungratefully there enters the word, selfishness . . . this is greed. The rich stay with all that and then the poor stay, as they prefer to say, without words, they want you quiet. (Recorded interview, July 2019, translated from Spanish by author)

Speaking again on the subject of exclusion, he brings up his belief that his family is systematically excluded by politicians and residents of Binnizá from the economic benefits that green energy development has brought to the town:

> But I'll say it again. Unfortunately, my family didn't receive any of that. I don't know why, I don't know. Maybe because they don't know how to read . . . it gets into politics. And my family, well, [politicians] don't . . . if they support, they don't support, except of course, when the votes come. . . . They're too old [Don Aguayo's parents] to get ahead. For as long as the Lord keeps them alive, well, that's how it is. (Recorded interview, July 2019, translated from Spanish by author)

Conclusion

For a long time, social theorists have seen crisis as a moment that confronts the present order of things and leads to an era where all societal tensions are resolved. The present climate change crisis is no different. Karl Marx, for example, saw the history of social evolution as being one of subsequent upheavals brought about by contradictions within the capitalist mode of production, which he speculated would result in a final revolutionary upheaval (a particular kind of crisis) that led to the communist mode of production, after which the inequities and violences of capitalist society would come to an end. In the case of Mexico, Marxist teleological imaginings of history are exemplified in a mural painted by Diego Rivera on the walls of the country's National Palace in Mexico City (figure 13.1). The mural depicts the history of the nation from the pre-Columbian period to the idyllic future to follow the communist revolution. The painting's dynamic composition zigzags through the three large walls of the palace's main staircase, visually narrating Mexico's history as a series of class crises and struggles, all to culminate at the top of the southern wall, where Karl Marx leads the Mexican people to an idealized future on the upper left corner. This idealized future is one of industrialization, clean skies, and the resolution of the country's identity crisis as *mestizos* reconcile the indigenous and European dimensions of their heritage.

Ulrich Beck, on the other hand, saw the risk society as creating a condition that would move people to form social movements that cut across

Figure 13.1. *The History of Mexico*, mural by Diego Rivera in the Mexican National Palace. © Roberto E. Barrios.

lines of class and national identity. Michel Foucault, for his part, hoped that "man" would one day vanish as an epistemic object, bringing biopolitical societies to an end. More recently, climate change has come to be seen as another crisis that may bring about a resolution to our modernist woes. Gaston Gordillo (2014) has gone so far as to say that climate change may be the final obstacle that brings neoliberalism to its knees. In this latter instance, it is no longer the communist revolution that will bring about the idyllic future imagined by Diego Rivera in the National Palace's walls; instead, it will be the global climate itself. The case of climate change mitigation programs in the Isthmus of Tehuantepec puts these hopeful hypotheses to a test and gives us a very different result. What we see in the case of Binnizá is that, rather than the emergence of a new transnational cosmopolitan environmentalism, climate change is creating a context where neoliberalism is reimagined in the form of green megadevelopment programs. Rather than vanishing, scarcity and biopolitical societies are finding new ways to continue to provide the resources they need—electric power, in this case.

The execution of renewable energy megadevelopment programs is also imbued with positive moral authority. The term "green" or "renewable

energy" itself conjures visions of clear skies, environmental harmony, and social progress in the imagination of many consumers. Unfortunately, renewable energy is also subject to fetishization that hides the sociopolitical relations that produce it. In the Isthmus of Tehuantepec, we see an instance where long-standing tensions between national governments and indigenous communities continue to play out over the course of green megadevelopment programs. Furthermore, these programs are structured on the assumption that indigenous communities are to be approached as collections of individual property owners who are left to their own devices to compete for fair compensation. While previous forms of energy production may have created environmentally harmful byproducts (e.g., carbon dioxide), renewable energy programs are now producing exacerbated inequities. Our point in this chapter is not to say that renewable energy programs are undesirable or inherently flawed but that radically different terms for their implementation must be called for. For Binnizáleños, these radically different terms would involve government representatives whose role was not to guard over the financial interests of energy companies during indigenous community consultation processes but to ensure equitable and fair treatment of all communities regardless of their ethnic identities or socioeconomic backgrounds.

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