

WATER, AGRICULTURE, AND WILDLIFE REFUGES ON THE NICARAGUA/COSTA
RICA BORDER

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WATER, WETLANDS AND PROTECTED AREAS ON THE NICARAGUA/COSTA RICA BORDER

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This dissertation is an ethnographic study of environmental politics in the Nicaragua/Costa Rica borderlands, wetlands, and waters. It explores the history of state bordering projects and other processes that have made the border, such as the Sandinista Revolution, the Contra War, postwar peace projects, and agricultural development. It also examines the role of borderland residents, protected areas, and transborder waterways in the making and unmaking of the Nicaragua/Costa Rica border. I build on the anthropology of conservation by showing how protected areas can be spaces of abandonment and neglect. I look at how borderland residents mobilize these abandoned wildlife refuges in their political and environmental protests. It is a waterscape ethnography; the chapters trace stories along different bodies of water, showing how water connects people, places, and histories across this border.

BIOGRAPHICAL SKETCH

Rachel Rose Odhner is originally from Rochester, New York. As an undergraduate at the University of Rochester and intrigued by the 2006 Cochabamba Water Wars, she went to Bolivia to study Spanish in 2007, where her love of Latin American began. In 2009, she spent a semester at the Pontificia Universidad Católica del Ecuador in Quito, Ecuador and researched the indigenous and campesino movement for food sovereignty, which became the subject of her honor's thesis. After receiving her bachelor's degree in cultural anthropology in 2010, she spent two years working, volunteering, and backpacking in the Andean region of South America. From 2012-2014, she lived in a rural community of northern Nicaragua as a Peace Corps Volunteer, during which time her interest in Nicaragua and Central America was born. She began her doctoral studies at Cornell in 2014. Rachel is a recipient of the National Science Foundation Graduate Research Fellowship, a Fulbright grant, and a National Geographic Society Early Career grant. She is excited to take her Ph.D. training as an anthropologist out into the world.

For Eduvijes Méndez.

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LIST OF ABBREVIATIONS

ALBA	<i>Alianza Bolivariana para los Pueblos de Nuestra América</i> Bolivarian Alliance for the Pueblos of Our America
ASADAS	<i>Las Asociaciones Administradoras de los Sistemas de Acueductos y Alcantarillados Comunes</i> Administrative Associations of Communal Aqueducts and Sewers
AyA	<i>Instituto Costarricense de Acueductos y Alcantarillados</i> Costa Rican Institute of Aqueducts and Sewage
CAFTA	Central American Free Trade Agreement (TLC— <i>Tratado de Libre Comercio</i>)
CANAPEP	<i>La Cámara Nacional de Productores y Exportadores de Piña</i> National Association of Pineapple Producers and Exporters
CENIDH	<i>Centro Nicaragüense de Derechos Humanos</i> Nicaraguan Center for Human Rights
CIRA-UNAN	<i>Centro de Investigación de Recursos Acuáticos-Universidad Nacional Autónoma de Nicaragua</i> Center for Water Resources Investigation-National Autonomous University of Nicaragua
CPCCC	<i>Comité de Protección, Cuido, Conservación y Colaboración del Área Protegida Refugio de Vida Silvestre Los Guatuzos, Reserva de Biosfera del Sureste Rio San Juan</i> Committee of Protection, Care, Conservation, and Collaboration
ENACAL	<i>Empresa Nicaragüense de Acueductos y Alcantarillados</i> Nicaraguan Company of Aqueducts and Sewage
FRENASAPP	<i>El Frente Nacional de Sectores Afectados por la Producción Piñera</i> National Front of Sectors Affected by Piñera Production)
FSLN	<i>Frente Sandinista de Liberación Nacional</i> Sandinista Front of National Liberation
FUNDAR	<i>Fundación Amigos del Río San Juan</i>
HKND	Hong Kong Nicaragua Development Investment Company

ICJ	International Court of Justice
IDA	<i>Instituto de Desarrollo Agraria</i> (Costa Rica) Institute of Agrarian Development
IRENA	<i>Instituto de Recursos Naturales y Ambiente</i> Institute of Natural Resources and Environment (Nicaragua)
ITCO	<i>Instituto de Tierras y Colonización</i> (Costa Rica) Lands and Colonization Institute
MARENA	<i>Ministerio del Ambiente y Recursos Naturales</i> (Nicaragua) Ministry of the Environment and Natural Resources
MINAE	<i>Ministerio de Ambiente y Energía</i> (Costa Rica) Ministry of the Environment and Energy
SENARA	<i>Servicio Nacional de Aguas Subterráneas, Riego y Avenamiento</i> National Service of Groundwater, Irrigation and Drainage.
SI – A – PAZ	<i>Sistema Internacional de Áreas Protegidas para la Paz</i> International System of Protected Areas for Peace
SINAC	<i>Sistema Nacional de Áreas de Conservación</i> (Costa Rica) National System of Conservation Area
UCA	Universidad Centroamericana (Managua, Nicaragua)
UCR	Universidad de Costa Rica
UNDP	United Nations Development Program
UNHCR	United Nations High Commissioner of Refugees

Introduction

From the bus window, I saw the waters of the majestic Río San Juan. We were crossing Puente Santa Fe, the largest bridge in Nicaragua which had opened just three years ago in 2014, en route to Costa Rica. Minutes later, as we approached the border, a cluster of roadside food stands came into view. Women were cooking and selling *gallo pinto* (rice and beans), *nacatamales* (corn tamales stuffed with beef), and grilled and fried meats with cabbage salad, mostly to men, who sat at plastic chairs and tables to eat. Other informal vendors walked around selling bottles of water, soda, and *colones* (the Costa Rican currency). Buses traveling this route, from the Nicaraguan lakeside city of San Carlos to the Costa Rican border, always stop at this spot a couple of miles short of the official border crossing—one of only two that exist along the entire border—to drop people off and pick people up.

Behind the food stands, between neat lines of TicoFruit¹ orange trees, huge groups of migrant workers who reside in Nicaragua and travel back and forth across the border daily to work, primarily on pineapple fields, waited for the trucks that would bring them into Costa Rica. These trucks avoid migration and the official border post and instead move through the orange plantations and onto unpatrolled backroads to cross the border. Amid all the commotion—traffic coming and going, people moving, eating, shouting, buying—the workers hardly stuck out. But they also were not hiding.

I was accompanying a group of people from two Nicaraguan NGOs, *Fundación del Río* (or Foundation of the River, referring to the Río San Juan) and the *Unión de Organizaciones Ambientalistas del sureste de Nicaragua* (Union of Environmentalist Organizations of southeast

¹ TicoFruit is a Costa Rican orange and pineapple processing and exports company.

Nicaragua), to a *Feria Binacional del Agua* or binational water festival. The event, sponsored by various social and environmental organizations in Costa Rica and Nicaragua, brought together residents, environmentalists, and activists from both sides of the border to denounce and organize around the pineapple industry's agro-chemical contamination of rivers, wetlands, aquifers, and community water sources. The group was entering Costa Rica with a *permiso vecinal*, or neighbor's permit, which gives Nicaraguans living near the border temporary permission to be in Costa Rica for a limited period. Renato, the leader of our group, had applied for the permit to avoid any trouble for their organizations or for the event. But the people traveling that day, who live along the border on the Río San Juan and along other nearby rivers regularly cross the river into Costa Rica *sin permiso*, or without permission.

After going through migration and customs, I walked across the border and met up with the group as we hopped onto another bus where we were welcomed by our Costa Rican hosts. Just minutes after crossing the border into Costa Rica, the pineapple fields, or *piñeras*, began. (Piñeras refers to pineapple companies and their industrial farms.) Twenty minutes passed and we were still looking out the bus window at seemingly endless fields of pineapple: rows of plants extending for miles and miles, in both directions for as far as the eye can see. Thick, curved lines of reddish-brown soil separating patches of dark green. The characteristic pom poms of splayed out leaves make it easy to recognize *piña* even at a distance. Rosa, the woman sitting next to me, said quietly, "*Pan para hoy y miseria para mañana.*" Bread for today, misery for tomorrow. "How many families could live on and cultivate all this land?" she wondered out loud.

Within a half hour, we arrived at a rural school outside of Los Chiles, Costa Rica, a town dealing with the effects of ground and surface water contamination from the pineapple industry. After a breakfast of *gallo pinto* and eggs, the event formally began. Participants, community

members and activists from both sides of the border, formed a large circle with their chairs and then introduced themselves. Renato gave the opening talk in which he introduced the event's central theme: how communities are organizing against the pineapple industry's contamination of surface and groundwaters and how these waters connect people and communities from this part of Costa Rica and southern Nicaragua, despite the border. Speaking of the Río San Juan, the river that forms the eastern part of the border, he said, "For the national governments, the river forms the border, but water knows no border. We did not put the border there. The river does not divide us—it unites us." Both the Río San Juan and the nearby Río Frío have long histories of connecting people across this border, despite the deeply embedded national narratives coming from the capital cities of Managua and San José that frame these waterways, and especially the Río San Juan, as centers of conflict and dispute. As pineapple companies encroach on the Río Frío and other waterways and wetlands in the area, and as agrochemicals contaminate these waters, residents from both sides of the border were coming together to organize against the contamination of their shared waterways.

Over the course of the two-day event, attendees gave speeches in which they expressed their anger and frustration toward pineapple companies, exchanged information about *piñeras'* water contamination and other environmental issues, shared stories, and circulated and signed petitions. In one forum a woman spoke about how her community's drinking water was now undrinkable and the steps they had taken to hold the pineapple company accountable. In another, a former pineapple worker spoke about migrant labor exploitation, the human rights violations he witnessed on the fields and ways he had been organizing for workers' rights. Activists also spoke about the encroachment of pineapple companies into Caño Negro, a nearby protected wetland area through which the Río Frío flows.

The water festival raised critical questions about water access and ownership, highly unequal concentration of land, uneven agricultural development and inequality, protected areas and Costa Rica's claims to conservation, environmental degradation, and the exploitation of migrant labor in this border region. The event also highlighted how border residents in this fluvial region relate to each other in part through water and negotiate the border in ways that both enact it and challenge it. This dissertation follows some of these themes along the rural communities, waterways, and protected areas of the Nicaragua/Costa Rica borderlands.

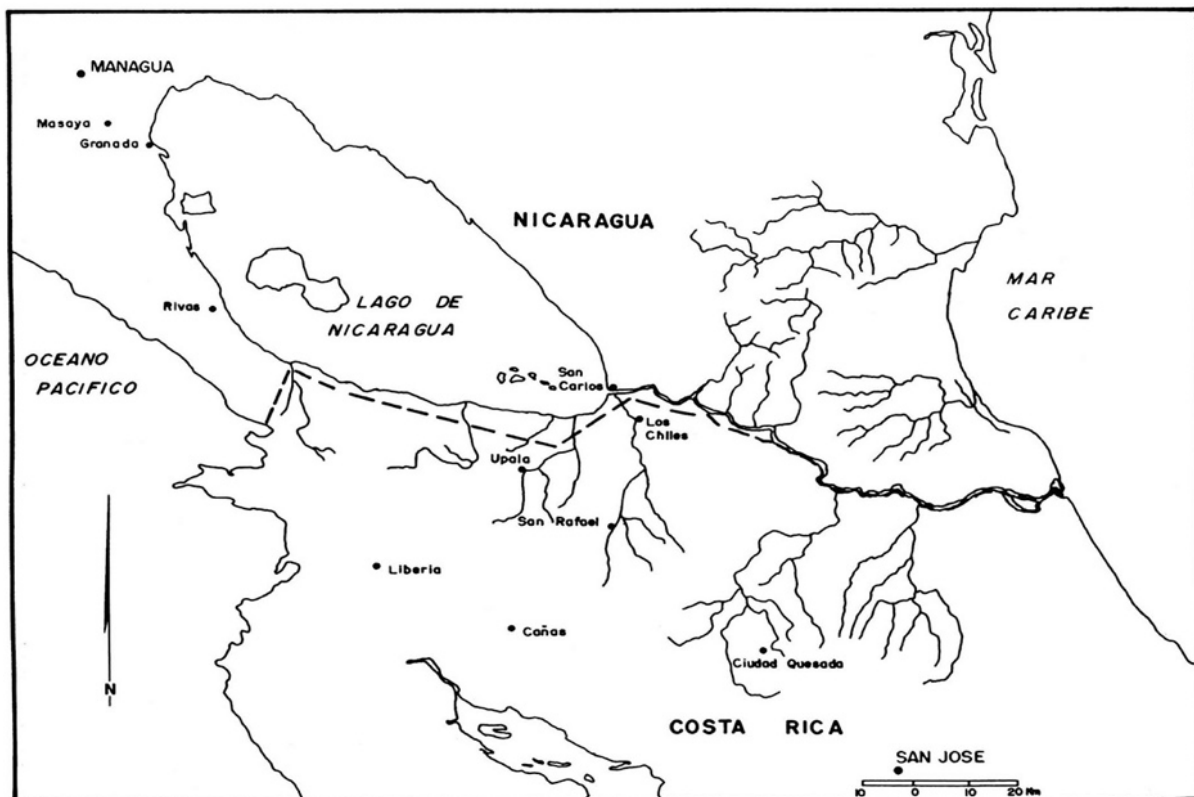


Figure 1: Map of the Nicaragua/Costa Rica border region
Source: Girot and Granados (1997)

This dissertation is a study of water and environmental politics and the making, remaking, and unmaking of the Nicaragua/Costa Rica border. The places I describe are part of a transborder wetland system and waterscape, the heart of which is Lake Nicaragua, Central

America's largest lake, also known as Lago Cocibolca, its indigenous Nahuatl name. Cocibolca's southern shores meet a dense network of rivers and wetlands that forms the middle stretch of the border between Nicaragua and Costa Rica. These waters then flow into the Río San Juan, also known as El Desaguadero (the drain), a 192-kilometer river which forms the eastern third of the border² between the two nations and is fed also by several major rivers that begin in Costa Rica.³ The Lake Cocibolca-Río San Juan system forms the largest watershed in Central America (Montenegro-Guillén 2003). Wetlands and rivers are thus an important feature of the Nicaragua/Costa Rica border. But the only body of water along this border that usually receives attention outside of the border region is the Río San Juan, to which I now turn.

El Río San Juan: decentering geopolitics and territorial disputes along the border

The grand narrative of the Nicaragua/Costa Rica border—and to some extent the country of Nicaragua—centers on the Río San Juan (Rabella 2013). A locus of geopolitical interest and territorial disputes for centuries, in part because of its suitability for a transoceanic canal, the Río San Juan has played a pivotal role in Nicaragua's indigenous, colonial, imperial, and postcolonial histories, and since the independence of the nation in 1838, it has been important to Nicaraguan national identity.⁴ Nicaraguan writer and poet Jose Coronel Urtecho⁵, who had a farm and homestead along the Río San Juan, famously wrote that the history of the Río San Juan is the history of Nicaragua.⁶ Politicians, historians, and journalists' representations of the border region have often focused on the river, either as a geopolitically strategic zone for colonial and imperial

² The Río San Juan is born from Lake Cocibolca but does not become the border until roughly 70 kilometers from where it begins, after it passes the riverside community of El Castillo.

³ Ríos San Carlos and Sarapiquí are two of the largest.

⁴ The same is true of Lake Cocibolca, which I address in chapter 1.

⁵ Urtecho originally supported Somoza's dictatorship, and only later became a supporter of the Sandinistas.

⁶ In his account of the river's history, Joaquim Rabella (2013) writes, "The entire history of Nicaragua and all the standard myths of the formation of Nicaraguan nationality have always revolved around the Río San Juan."

powers, due to the possibility of the canal, and/or as the source of tired territorial disputes between Nicaragua and Costa Rica (Sibaja 1974; Obregón 1993; Quesada 2014).

Prior to the arrival of Spanish colonists, the region surrounding the river and lake was home to different indigenous groups including the Guatusos, the Nahuatl speaking Pipil-Nicarao people, and the Chortegas. The Guatusos, also known as the Maleku, lived along many of the rivers I focus on in this dissertation (Vásquez 2005). It was by ascending the Río San Juan that Spanish colonists first arrived in the area in 1524, and the river remained a strategically important and contested route for Spanish and British colonialists throughout the 16th and 17th centuries (Folkman 1972; Kinloch 2015).⁷ Nicaraguan poet Ernesto Cardenal writes about the 16th century obsession with a potential interoceanic canal in his 1966 poem *El Estrecho Dudoso*, or “the doubtful strait,” which counter-hegemonically traces the colonial history of the conquest of the Americas, with particular attention to Nicaragua and the canal route. (But the route remains a “doubtful strait,” or “phantom object.” See Cardenal 1995).⁸

The border between Nicaragua and Costa Rica was first established in 1838 when both nations gained independence from the Federation of Central America⁹, and it was then redrawn in the 1858 Cañas–Jeréz Treaty.¹⁰ The creation and delineation of the boundary between

⁷ Still today, the ruins of a Spanish fort, *La Fortaelza*, stand along the river’s banks in a town named El Castillo. Today, the old fort is home to an excellent small museum about the history of the river and the various canal projects. Beginning in the 1650s, the river and lake became a target of pirates, buccaneers and filibusters from the Caribbean. In 1856-57, U.S. filibuster William Walker attempted to take over Nicaragua, leading to the Filibuster War of 1856-57 in which Costa Rica and other Central American countries joined forces with Nicaragua to defeat Walker. Walker has become an enduring symbol of U.S. imperialism and intervention in Nicaragua.

⁸ “The Doubtful Strait” is a book length narrative poem based on archival research and texts from the Spanish colonial era. Woven through the narrative of Spanish colonialism is a historical recounting of the Somoza dictatorship in Nicaragua, which Cardenal compares to the violent rule of Spanish colonizers. For the first English published English translation and a bilingual edition, see Cardenal 1995. See also Williams 1990.

⁹ Nicaragua and Costa Rica gained independence from Spain in 1821, were briefly part of Mexico, and then part of the Federal Republic of Central America until becoming independent republics in 1838.

¹⁰ Due to ongoing territorial disputes, in 1888 U.S. President Cleveland validated and arbitrated the original treaty in what is known as the Cleveland Award. See Esgueva 2007 for a comprehensive review of nearly all the historical documents related to the border from the colonial period through 1900.

Nicaragua and Costa Rica was closely related to the potential canal project and was the object of intense rivalry and legal scrutiny throughout the second half of the 19th century (Girod 1994). A long stretch of the Río San Juan, which begins at the southeastern corner of Lake Cocibolca and then runs 192 kilometers east before flowing into the Atlantic Ocean, became the eastern border. Unlike most river borders in the world for which the division line is the middle of the river, the division line for the Río San Juan is the southern shore of the border, meaning that the river “belongs” to Nicaragua, but according to Cañas-Jerez and subsequent border treaties, Costa Rica has navigation rights.¹¹ The varying water levels and the river’s slightly shifting course make thus make this a “mobile border” (Rocha 2005). Since that first treaty, the river has been the focus of ongoing territorial disputes between the Nicaraguan and Costa Rican governments.¹²

From the mid-19th to the early 20th century, the Río San Juan became the site of increasing imperial interest, as conflicts and geopolitically-driven foreign intervention, especially by the U.S., began to intensify in relation to the possible construction of a canal along the river and through Nicaragua (Girod 1994).¹³ The possibility of the canal also intensified border disputes between Nicaragua and Costa Rica. The river became a center of national political debate in Nicaragua as the U.S. sought to gain exclusive rights to the canal route (Gobat 2005). The river witnessed many surveys, starts, and stops to various canal projects, some by the U.S.

¹¹ Article VI of the Cañas Jerez treaty states, “Nicaragua shall have exclusively the dominion and sovereign jurisdiction over the waters of the San Juan river from its origin in the Lake to its mouth in the Atlantic; but...Costa Rica shall have the perpetual right of free navigation on the said waters...for the purposes of commerce either with Nicaragua or with the interior of Costa Rica, through the San Carlos river, the Sarapiquí, or any other way proceeding from the portion of the bank of the San Juan river, which is hereby declared to belong to Costa Rica.”

¹² Territorial conflicts along this border have been particularly important to Nicaragua because it is the less powerful nation and due to lasting bitterness over the annexation of Nicoya, a large chunk of Nicaraguan territory, to Costa Rica in 1824. Today, the area is known as the department of Guanacaste and contains many of Costa Rica’s most visited and profitable beaches for international tourism.

¹³ The California Gold Rush of 1848-49 led U.S. entrepreneurs to establish a transisthmian route through Nicaragua. In 1851, Cornelius Vanderbilt’s Accessory Transit Company began bringing people from the east coast of the U.S. to California via the San Juan River and Lake Cocibolca. This was the fastest coast-to-coast route prior to the completion of the U.S. transcontinental railway in 1869. See Gobat 2005.

Army Corps of Engineers and others by private U.S. companies, but none ever came to fruition.¹⁴ In 1902, the U.S. decided to build the canal in Panama, but still sought to prevent any other country from building a canal through Nicaragua and thus the canal remained a principal justification for U.S. intervention. Even beyond the canal, generations of politicians and elites have made the river a symbol of Nicaraguan nationalism and national unity. At the turn of the 20th century, Nicaraguan liberal elites, as part of their efforts to legitimize the project of forging a nation-state, made the Río San Juan a reference of nationality, primarily through its link to the potential canal project (Sandoval 2012). Throughout the 20th century, asserting Nicaragua's exclusive ownership over the river was central way that politicians defined and sought to deepen sentiments of national patriotism (Pasos Argüello 1994). Nicaragua's southern border again became a site of geopolitical importance during the Cold War, specifically in the 1980s when the CIA began to sponsor the Contra rebels (see Granados 1985); I discuss this in chapters 2 and 4.

Between 2005 and 2011, the International Court of Justice (ICJ) heard three cases about navigation rights on the river.¹⁵ Since his return to power in 2007, Nicaraguan president Daniel Ortega has given new life to this old dispute, using the river as a political tool to exacerbate conflicts with neighboring Costa Rica as a means of rallying domestic political support.¹⁶ In the most recent incarnation of this longtime dispute over the river, both governments, and especially

¹⁴ Today, at the mouth of the Río San Juan in Greytown, lie the scattered ruins from one such abandoned project, including a rusty old dredge standing tall above the water.

Obsession over the canal also led to colonial, imperial, and later nationalist discourses built upon geography-as-destiny tropes. Upon first arriving to what is today Nicaragua, a Spanish colonist remarked that it was nature and God's destiny to have a canal there. Environmental historian William Cronon (1991, 1996) critiques geography-as-destiny tropes, because explaining history through the notion of "natural advantages" or conditions places responsibility on "nature" for what are ultimately human decisions, human labor and human politics.

¹⁵ In 2005, Costa Rica filed a complaint about navigation rights on the river. In 2009, the court ruling confirmed Nicaraguan sovereignty over the Río San Juan and Costa Rica's right to free navigation on the river for commercial and tourism purposes, but not for police boats except for changing personnel (not to patrol).

¹⁶ Critiquing political use and abuse of the Río San Juan, Rocha (2005) writes that Nicaragua's politicians are "resuscitating 19th-century nationalist zealotry...[about] a river many of them have never even been on." In Costa Rica, the Río San Juan does not have the same importance, but the perpetual conflict over the river has served Costa Rican nationalism too since Costa Rican national identity has been built in opposition to Nicaragua (Sandoval 2012).

Costa Rica, framed the dispute as not only a conflict over territorial sovereignty, but also over the environment. In October 2010, Nicaraguan government officials ordered the dredging of the Río San Juan, with the stated aim of improving navigation on the river. A Nicaraguan dredging vessel named *Soberanía* (sovereignty) began dredging. Days later, Costa Rican officials denounced Nicaragua for allegedly moving sediment from the dredging operation onto Isla Calero, an island belonging to Costa Rica, and causing environmental damage. Nicaraguan officials denied the accusations and asserted that the dredging expressed Nicaragua's sovereignty over the river. The Costa Rican government then declared Nicaraguan officials' actions as an "invasion of territory," and, since they have no army, sent a police force to the border. When the Costa Rican police withdrew, Nicaraguan troops placed a Nicaraguan flag on the site.

The dispute made global headlines in the New York Times and elsewhere as "The First Google Maps War" (Jacobs 2012). The official in charge of the dredging, Edén Pastora (known for his complicated role in the Sandinista Revolution and Contra War), citing the border line according to Google Maps, claimed that he was not trespassing on Costa Rican territory. The border, it turns out, was mismarked on Google Maps. Costa Rica filed a suit in the ICJ against Nicaragua for environmental damage to wetlands and for violating Costa Rican sovereignty. Then-President Laura Chinchilla declared a state of emergency to build a road alongside the river, to protect Costa Rica's national sovereignty and security (and because the border dispute jeopardized the access of the river by Costa Rica citizens who use it daily for transportation). The road, which came to be known as *la trocha*¹⁷ (path or dirt road), became embroiled in

¹⁷ The formal name of the road is the 1856 Juan Rafael Mora Porras roadway; 1856 is the year that Costa Rica defeated filibuster William Walker, a U.S. charlatan who had invaded Nicaragua and declared his presidency, in the Filibuster War, under the leadership of President Juan Rafael Mora Porras. It earned the nickname *La trocha*, which means path or trail, because it is more like a trail than a road in many sections.

accusations of corruption and turned into a controversy of its own (see Mora 2012).¹⁸ Since the road was built under emergency decree, the government was allowed to forego the standard environmental review process. Nicaragua responded by filing its own International Court case against Costa Rica, citing extensive deforestation of the river bank and environmental damage to the river due to the construction of the road. The border dispute escalated quickly and became a “national crusade” in both countries (Sandoval 2012). News media and social media, the latter of which had not been around in earlier incarnations of the dispute, were full of nationalism and xenophobia (Sandoval 2012).¹⁹ A music video titled, “El Río San Juan es Nica,” by a Nicaraguan music group from the Atlantic Coast, went viral online. The video gives a sense of the river’s importance as a key cultural symbol for nationalist politics.²⁰

In Costa Rican government and media discourse around Isla Calero, environmental harm took precedence over concerns about territorial sovereignty. Costa Rican government officials expressed concern for the island’s wetlands and its ecological importance and protected area status, condemning Nicaragua before the Ramsar Convention, an international organization dedicated to the protection of wetlands.²¹ International media coverage of the event, following government statements, depicted Isla Calero as a protected area and an important wetlands site.²² Framing the matter in environmental terms drew on and bolstered Costa Rica’s image as an ecologically responsible state and appealed to an international audience. Largely absent from

¹⁸ Costa Rican critics pointed out that the road was hastily began and did not in the end contribute to national security, but rather was a waste of money. Nicaraguans criticized the project as environmentally destructive and a hypocritical move by a state outwardly concerned with conservation.

¹⁹ The Nicaraguan government published and widely distributed a 76-page white paper called “The Truths that Costa Rica Hides,” refuting Costa Rica’s claims to the river, to having no army, and to being environmentally friendly.

²⁰ See Natvig 2013, Quesada 2014 and Abbas 2020 for more on the Isla Calero conflict.

²¹ A mission from Ramsar visited Isla Calero to assess the damage and published a report of their findings (RAMSAR 2011).

²² The island is part of two wildlife refuges: Barra Colorado and the Corredor Fronterizo, which I discuss in Chapter 4.

government and media narratives was the fact that that Isla Calero is also home to roughly 100 families, primarily farmers, their farms, and small cattle ranches. This was brought to my attention when I went to Isla Calero in 2019. “The island is full of farmers,” my guide Edwardo told me as we walked between homesteads visiting people. Discussing the international dispute, one resident told me: “Isla Calero *was* full of wetlands. Not anymore. Now many of those areas are pastures for cattle ranching.”²³

Following the dispute, political discourse about national security and defending the territorial sovereignty—and now, protected wetland areas—of the Costa Rican nation intensified. The conflict also changed dynamics locally on the border, at least temporarily, as both states increased usually non-existent border enforcement measures. In 2018, the ICJ announced its decision to side with Costa Rica, marking the first time that the ICJ has adjudicated compensation for environmental damage, and only the third time the ICJ has awarded compensation at all (Rudall 2016). The Isla Calero dispute has been settled for now, but tension between national governments over the Río San Juan and the border persists.

This dominant narrative of border conflict, in which the Río San Juan is primarily a geopolitical and political tool, and elites’ and politicians’ focus on the river as a source of conflict, competition and division, distorts the social life of the river (Wagner 2013) in border communities, border residents’ relationships to the river and to each other through the river. It obscures the fact that the river connects border communities and thousands of binational families. Renato’s comments at the water event with which I opened illustrate this tension between nationalist border conflicts and local crossborder realities. For many border residents, the river is not a source of conflict, but rather a common and shared meeting place and resource.

²³ I do not wish to reproduce the myth of pristine wilderness or suggest that protected areas should be absent of people, but simply highlight how representations of Calero were skewed.

(Residents made similar statements about the border in general as I will describe later.) Water activists and border residents denounce both governments' attempt to appropriate the river as a political tool, emphasizing instead their shared relationship to the Río San Juan and claim that *el agua no conoce fronteras*, water knows no borders.²⁴

This dissertation decenters the Río San Juan and the dominant narratives of this border, and explores other parts of the border: the many wetlands and smaller rivers that form the bigger waterscape of which the Río San Juan is but a part. I zoom out from colonial fights, imperial interventions, and nationalist debates over the Río San Juan, and refocus on a smaller scale to investigate other, less publicized waterways, water histories and water issues along this border. Refocusing on these other places and bodies of water gives us a different view of the everyday dynamics of this borderland, including social relations among neighbors, and opens up new questions. In what other ways does water matter on this border, beyond the old, nationalist dispute (and earlier colonial, geopolitical, and imperial obsessions) over the Río San Juan? How have local people experienced the border and the region's many waterways? What are the local conflicts and dynamics around water? In exploring these questions, I aim to paint a picture of the border region closer to the daily lives and experiences of the people who currently live there. I also hope to shed light on other processes of border-making, re-making and un-making, happening along the open fields, remote rivers, forests, backroads, wetlands, and *rincones* (corners) that make up this rural border region.

There are political stakes in this move as well. Shifting away from nationalist narratives of the Río San Juan that focus on conflict and which nation owns or controls specific areas of

²⁴ Anthropologist Donna Flynn (1997) writes about a similar dynamic among residents of the Benin-Nigeria borderlands who express an affinity to place and one another more than they do to their respective national governments. Flynn observes that for Benin/Nigeria borderland residents, "the Okpara [River] is less a boundary dividing them into two nations than a bridge linking them in mutual interdependence."

land, wetland and water, and scaling down to look at other water conflicts along the border allows us to examine the struggles over who actually controls water on a micro-scale. So it is not necessarily a matter of which country, but rather which people, institutions, industries, companies, and other interests actually control water at a local level. This will give us a clearer picture of the power relations and inequalities affecting border residents at a local level. Specifically, we see how socio-economic and political inequality—not just between nation-states, but among powerful agricultural landholders, companies, and local communities within and across the border—shapes access to and control over water. In this regard, to tell the story of the Nicaragua/Costa Rica border through the lens of the Río San Juan serves as a distraction that inscribes division and serves elites and power interests within both countries (and abroad)—as national narratives and myths are so often designed to do.

The making and unmaking of the border

Borders are constitutive of the very notion of the state; they mark a state's territorial limits, within which the state has jurisdiction and can exercise its sovereign power. A state's sovereignty is thus defined through territory (Sahlins 1989²⁵), and it is through the creation and maintenance of territorial borders that states seek to control people and resources (Nadasdy 2017). The demarcation of territory and creation of a territorial state, together with the construction of national identity, are the essential components of the modern state. But, as anthropologist Paul Nadasdy (2017: 95) points out, “the link between state territory and sovereign power is far from clear cut in practice...although territorial sovereignty is the ideal basis for state power...the exercise of that power and the territorial claims on which it is based is always contingent and open to contestation.” Scholars such as historian Peter Sahlins (1989)

²⁵ Although, as Sahlins describes, this was not always the case; the concept of territorial sovereignty emerged historically from that of jurisdictional sovereignty, a process he terms “the territorialization of sovereignty.”

have demonstrated how the historical development of state boundaries, the work of staking them out and making them socially relevant at a local level on the actual border, is a contested, messy, and ongoing process.

Historians and social scientists have denaturalized the idea of borders as “things” or singular, static lines structuring the world, and instead examined borders as ongoing social and historical processes at once material and discursive that require constant negotiation and maintenance (Paasi 1998).²⁶ Scholars have analyzed how particular borders are made and remade, constructed and produced, and looking at what practices or forms of borderwork (Reeves 2014²⁷) produce, reify, reinscribe or maintain the border, and how different actors make or enact borders in particular places over time and space (Green 2009; Jansen 2013).

From the location of the border, the inconsistencies, incompleteness, and fragmentation of state projects of territoriality (and territorial sovereignty) become especially clear.²⁸ Just as borders are constantly being made and remade, they are also continually being challenged, ignored, refused (Simpson 2014), and transgressed (Heyman 1999; McGuire 2013). Alongside borderwork, then, is the work and everyday practice of undoing borders. Borders are continually being reconfigured; they are unstable and fluid. Some scholars have considered the border as multiple. Reeves (2014:54), drawing on Mol’s notion of disease and the body as multiple (2002), examines “the multiple sites in which a border comes to materialize.” Attending to the multiplicity of the border highlights that the border is not a singular object in a singular location,

²⁶ This move in border studies follows the move in critical scholarship of the state, which rejects the assumption of the state as a coherent and monolithic entity, and instead examines the complex interactions, practices, and processes through which the state and state power is exercised and experienced (Nadasdy 2003).

²⁷ In her ethnography of bordering where the post-Soviet states of Kyrgyzstan, Tajikistan and Uzbekistan meet, Reeves (2014:6) defines borderwork as the “messy, contested, and often intensely social business of making territory integral,” and she examines the “everyday entailments of sovereignty and territorial integrity” (8).

²⁸ Some scholars have argued that borders are the best site from which to study state formation (Sahlins 1989).

but rather is made to cohere (or not) through various situated practices and tactics by a range of different actors in particular moments.

The chapters of this dissertation explore what this contingency and multiplicity look like on the Nicaragua/Costa Rica border. Nicaragua has a military presence on the border, armed men with green suits at occasional outposts. Costa Rica does not have an army, but since 2013, has had a designated border police, formed and initially funded by the U.S. government. Based on the stories people told me and the fluidity with which people seemed to move back and forth across border (mostly Nicas in and out of Costa Rica), it seemed that some of the border enforcement was a performance of sovereignty. Despite some of the political discourse surrounding the border, which suggests that it is carefully monitored and enforced, on the ground the Nicaragua/Costa Rica border is, in many places, open and porous, part of a fluid landscape. Between the two official border crossings—Peñas Blancas in the west, and Las Tablillas in the east—the border is largely uncontrolled and unenforced. In most of the places I spent time, there is minimal or no border infrastructure, and borderland residents' daily movements and social and kin relationships are largely unencumbered by the border.

While the border itself is hardly marked and often disregarded by border residents, its effects are clear and visible, most notably in the stark socioeconomic inequality that the creation of different national jurisdictions has generated. In this sense, the daily flows of people across the border, while subversive in a sense, is not entirely or necessarily emancipatory. As Heyman and Campbell (2009) demonstrate, border flows do not necessarily indicate a weakening of territorial power of the state but rather can also create, sustain and deepen inequality. The border between Nicaragua and Costa Rica is the most unequal border in all of Central America, and a huge disparity in the quality of life is evident upon crossing from one country to the other. In

most of the places I spent time, this disparity was the primary indication that one had crossed the border. Much of the daily movement back and forth across the border consists of inhabitants of Nicaragua crossing into Costa Rica to take advantage of employment opportunities or state services such as schooling or potable water that are unavailable in Nicaragua, or to sell their agricultural products at a higher price. In this way, the border structures people's lives.

Just as borders themselves are inherently unstable, often the regions through which borders cross are unstable too. A borderlands approach (Alvarez 1995), which emerged from the field of history and was made famous by Chicana feminist scholar Gloria Anzaldúa (1987²⁹), entails looking at the spaces between nations as binational or transnational spaces in which local people, local social relations, and landscapes transgress and exceed the neat line between nations.³⁰ Like the U.S./Mexico border described by Anzaldúa, and many other border regions around the world, in the Nicaragua/Costa Rica borderlands, people's social relations, livelihoods, and understanding of the landscape and waterways, often do not fall neatly on one side of the border or the other. My dissertation takes a borderlands approach and expands on the work of Nicaraguan and Costa Rican scholars who have written about the fluidity of social relations and binational character of this border region (Rocha 2005, 2008, 2009; Sandoval 2012; Solórzano 2018; Girod and Nietschmann 1992; Morales 1997), despite the animosity between governments at the national level (Cortés Ramos 2011) and the xenophobia that exists in other parts of Costa Rica against Nicaraguans (see Sandoval 2004a).

²⁹ Anzaldúa (1987) writes about how life in the borderlands creates a third space between cultures and social systems, a space of hybridity, and how colonial-political boundaries violently deny the hybrid identity and experience of people living in borderlands. In later work, Anzaldúa (1993) proposes the concept of *nepantla*, the Nahuatl word for an in-between state, as a way of thinking about this liminal borderlands space.

³⁰ The field of borderlands history, which scholars trace to historian Herbert Eugene Bolton's (1921) work on the Spanish-American borderlands, and subsequently borderlands studies, helped to unsettle state-centered paradigms of history by exploring how history has been shaped as much by people, places, landscapes, and events of the margins and edges of nations and empires, as it has from their centers. See Hämäläinen and Truett (2011) for a review. The U.S./Mexico border has continued to be the paradigmatic case for border and borderland studies.

Much of the border region (everywhere east of the official crossing on the Pan-American Highway at Peñas Blancas) was, in practice, borderless for roughly a century after the legal drawing of the international boundary. Most inhabitants of the border region migrated there from other parts of Nicaragua, so today many inhabitants of northern Costa Rica are originally from Nicaragua. Throughout this dissertation I adopt local usage of the terms Nica, short for Nicaraguan, and Tico, short for Costa Rican. In the north of Nicaragua, Tico is the “other,” and for some Ticos, Nica is the “other,” and sometimes a dangerous other, as Nicaraguans are associated with crime. Racism, anti-immigration sentiment, and xenophobia towards Nicaraguans exist in other parts of Costa Rica, especially in San Jose and the Central Valley, where the majority of Nicaraguan migrants live. But I never observed this among residents of the northern region. A very different picture of Nica-Tico relationships emerges in the borderlands and borderwaters, where the meaning of this distinction between Nica and Tico tends to collapse: one of interconnection and hybridity. As one resident put it: “Between pueblos we are the same, the politicians are the ones with differences.”³¹ Many border residents claim both nationalities, and some express a shared sense of identity, one anchored in place and historical interconnectedness that does not map onto the binary that the national identities offer. Among residents who do identify only as “Nica” or “Tico,” there is a general sense of affinity and neighborliness across the border, as reflected in their daily movements and their political mobilizations which I describe in this dissertation.

And yet, the imposition of the border and its impacts on the everyday lives of residents is relatively recent. It was only in the mid to late-1970s that central states began to have more of a presence along the border. In this dissertation, I look at how various state agencies as well as

³¹ He added: “And the problem is Nicaragua.” In saying the problem was Nicaragua, he echoed a common perception that the Nicaraguan government was more interesting in picking fights about the border than Costa Rica.

foreign governments have produced the border in different ways since the 1970s: through war, agricultural colonization and settlement, postwar conservation schemes, the creation of protected areas, and economic and agricultural development. I also attend to the unintended consequences of these same bordering projects: for example, how postwar projects further fragment border territories and state protected areas on the border engender crossborder solidarity and activism.

I also build on the work of scholars who have highlighted how it is not just state agencies and officials but also ordinary people living near borders that participate in processes of border making, remaking and unmaking (Sahlins 1989; Chalfin 2010; Reeves 2014; Lim 2017). One insight of this scholarship is how borderland peoples “[use] national boundaries for their own purposes” (Lim 2017:12).³² In this dissertation, I highlight how borderland residents along the Nicaragua/Costa Rica border make and unmake the border through their everyday practices, sometimes ignoring it or subverting it, and other times enacting it for economic or political purposes. While the daily existence and identity of many borderland residents is not bound by the border, as I discuss below, they do invoke the border and draw on their national identities in moments of conflict or when it is in their interest to do so. For example, when a local river dries up, borderland residents who hardly identify as Nicaraguan adopt their Nicaraguan citizenship to call on national governments to address water-use violations in their territory (see chapter 2).

Protected areas and environmentalisms on the border

A key theme of this dissertation is how protected areas in the Nicaragua/Costa Rica border region became a tool through which local people organized and protested state

³² Sahlins describes borderland people invoking their national identities to advance their own local interests, for example to qualify for certain tax exemptions, petition the government for assistance and reforms, gain leverage in resource conflicts, and resist large landowners buying up land. His historical ethnography of the borderland in the Cerdanya region between France and Spain shows how national identities emerged in border villages from these local processes of adopting and appropriating the nation, without people abandoning local interests and a local sense of place.

abandonment and neglect. Protected areas were first established in the border region in the postwar period of the 1990s as part of a transborder peace park, which I describe in chapter 2. Through this project, the region came to be known for its transborder wetlands and biodiversity, and recognized by conservationists as one of the most important wetland areas in Central America (Montes de Oca Lugo and Calvo 2006). Transborder protected areas in Central America at this time were envisioned and presented as sustainable development initiatives to help war-torn territories recover and rebuild from war. They were also part of renewed efforts toward regional integration in the 1990s, as government officials and policymakers recognized the development of border regions as key to Central American economic integration (Girof 1997).

Environmental historians, anthropologists and geographers have focused on protected areas as a means of dispossession (Spence 1999), the criminalization of local populations (Jacoby 2014), and a way for states to intervene in a territory and gain greater control over that territory's people and resources (Peluso 1993; Lunstrum 2014; Meierotto 2014; Ybarra 2012, 2016). Paul Robbins (2012) sums this up as the "conservation as control thesis," a common theme of political ecology. Understanding conservation as a mechanism for the state to intervene in a territory is especially relevant in the case of protected areas in border zones: spaces that the state has particular interest in securing (Sundberg and Kaserman 2007). Scholarship on protected areas as mechanisms for dispossession and extensions of state power shapes my analysis in the chapters that follow; conservation and protected areas have certainly been strategies of state control on the Nicaragua/Costa Rica border. And yet, given the ways that local people talked about, understood, and mobilized such areas, I concluded that a focus on state control does not tell the whole story. Very little of the literature critiquing conservation, with its focus on

governance, imposition, and control, describes protected areas where conservation status is either not enforced or barely enforced.

In this dissertation, I show how protected areas, while they may serve as instruments of state control, can also showcase state abandonment and neglect. Specifically, I suggest that they have contributed to the unmaking or destabilization of the border, as border residents mobilize abandoned or forgotten protected areas—and especially wetlands and bodies of water within these protected areas—and environmental discourses to critique the state and state neglect. In the cases I present, protected wetland areas on the border are central both to border residents’ discontent regarding government involvement—and lack of involvement—in the region, and to their crossborder organizing.

Control was a word that came up all the time during my fieldwork, but almost always in relation to its lack: there is a “lack of control,” “not enough control,” “no control.” People spoke of this lack of control in relation to the protection of conservation areas (enforcement of regulations)³³, migration patrol at the border, enforcement of the border in general, and water-use regulations. So while the creation of protected areas on the border certainly was a form of state control, even more evident and often of more concern to local people, was the opposite: a lack of control, a lack of presence, abandonment. Nicaragua and Costa Rica have very different conservation policies, models, and reputations, but the border *refugios* (refuges) and *reservas* (reserves) I encountered looked and felt—in their decay and abandonment—strikingly similar on both sides of the border. One of my questions thus became not what the imposition but rather the abandonment of a protected area means for the people who live there? I became interested in this

³³ When speaking of protected areas, people often used the word “control” in place of the word management, for example the environmental ministry’s “control” of a territory meaning enforcement of regulations on logging and restrictions on hunting.

apparent contradiction between conservation areas as a means for state control on the one hand and their on the ground abandonment and disrepair on the other. Wildlife refuges on the Nicaragua/Costa Rica border thus came to encapsulate and further complicate a question I already had about the border zone: How do we account for the fact that borders are critical territories to secure, and at the same time some of the most marginalized and forgotten regions?

Abandoned buildings and old, fading signs of past conservation initiatives dotted the border region. Local residents mobilized these ruins and abandoned spaces to critique local and national government agencies. Referring to the condition of the area's wildlife refuges was one of the main ways that residents articulated their sense of being abandoned by the Nicaraguan or Costa Rican state, not just the environmental ministry but "*el estado*" (the state) or "*el gobierno*" (the government) at large. Residents in different communities, including people who are critical of protected areas, deploy local wildlife refuges and discourses of environmental protection to articulate their broader political frustrations with their respective central governments and in some cases both governments. While in many instances border residents reject and/or ignore protected area designations, in other moments border residents strategically adopt the cause of their local "*refugio*" to make and bolster their political claims and grievances against local and national government(s), such as water conflicts resulting from lack of environmental regulations, and to contest certain forms of agricultural development, such as rice farmers' harmful irrigation practices (Chapters 2 and 3) and the violations of water regulations by pineapple farms (see Chapter 4), and to advocate for more equitable water rights and access.

Crossborder concerns and mobilizations for protected wetland areas were thus ways for people to articulate broader claims about water access and water rights. Such practices also enabled people to draw on and further forge their binational identities. For these reasons, I argue

that some of the protected areas on the Nicaragua/Costa Rica border, rather than simply helping to delineate and secure the border, also undo or unmake the border, because they end up being points of shared interest and grievance between citizens and neighbors across the border, feeding border residents' resentment toward government agencies and their sense of borderlessness.

Border residents' critiques of state abandonment or mismanagement of wildlife refuges was especially strategic in Costa Rica, a country known worldwide and considered exceptional for its commitment to environmental protection and for its famed conservation model. In chapters 3 and 4, I explore how local people in border communities negotiate, resist, or adopt the green image promoted by the Costa Rican state (Fletcher et. al 2020). Border residents mobilized abandoned protected areas in their communities to counter state discourses of environmental protection and ideas about Costa Rica as a "green country" (Evans 1999) and eco-tourism paradise. Doing so sometimes succeeded in bolstering other claims and drawing more attention to their cause.

Costa Rica's conservation narratives (Campbell 2002) and discourses of environmental exceptionalism, which emerged in the 1970s (see Evans 1999), forms part of a broader and much older narrative of Costa Rican exceptionalism within Central America: as a country founded on the values of democracy, peace and social equality.³⁴ Unlike the other countries in the region,

³⁴ Throughout the 19th and 20th centuries, and now into the 21st century, politicians have emphasized the uniqueness of Costa Rica (Sandoval 2004). Often, politicians have constructed these narratives of uniqueness and exceptionalism in opposition to neighboring Nicaragua and Nicaraguans, who have represented an "other," perpetually caught up in political problems and violence. There is also a racial and racist dynamic to these narratives; with Costa Ricans imagined as white, and Nicaraguans imagined as darker skinned.

Nicaragua has its own narratives of exceptionalism, which are more recent and refer mostly to the country's relative political stability, safety and security since the 1990s and especially 2000s compared to neighboring countries of El Salvador, Guatemala and Honduras. Despite persistent poverty—Nicaragua is the poorest country in the Western Hemisphere next to Haiti—Nicaragua has been relatively stable economically and politically since the 1990s, experiencing a long period of economic growth and political stability. The political crisis of April 2018 which I describe in chapter 1 interrupted this period of stability. Development actors, policy makers and scholars have explained "Nicaraguan exceptionalism" primarily in terms of the legacy of the Sandinista Revolution, in particular the revolution's social support programs in education, literacy, and health care (Francis 2020). President Daniel Ortega takes credit for Nicaragua's low crime rate and stability, claiming these successes as a result of his

Costa Rica has experienced political stability and economic progress since the 1950s. It is the region's oldest and strongest democracy and has no army; in 1948, then-president Figueres had abolished the national army following the country's civil war. Costa Rica is also often cited for its development success; the country regularly ranks as having some of the highest development and quality of life indicators (such as life expectancy, literacy rate, and per capita GDP) in the region (Sandbrook et. al 2007). Because there is a robust middle class and relative social equality compared to other countries in Latin America, it is common for people to call Costa Rica "the Switzerland of Central America." With no army, and as one of the only countries in Central America (together with Belize) that was not immersed in violence during the 1980s, Costa Rica is often described as an oasis of peace in a region perpetually caught up in violence and war.³⁵ Costa Rican politicians continue to claim these exceptionalisms of social equality and democracy as part of national and nationalist narratives (Sojo 2010). But border residents in northern Costa Rica contest these narratives. They argue that these narratives of exceptionalism fall apart on the border, where poverty, social inequality and exclusion, and environmental degradation persist and remain relatively hidden due to the region's marginal status (National debates over pineapple have changed this, see chapter 4). As this dissertation demonstrates, Costa Rica's enduring image as an ecological oasis frays in the borderlands and waters.³⁶

In chapter 3, I elaborate on the history of Costa Rica's narratives of exceptionalism, and discuss the history of the development of conservation and environmentalism in Costa Rica, which began in the 1960s and was closely linked to scientists and conservationists from the

political leadership and investments in the rural poor, as victories of the Sandinista Revolution. Skeptics suggest a different explanation, one I often heard: that Ortega's fierce grip on power includes a pact with narcotrafficking and gang leaders, enabling narco networks to operate quietly in exchange for not affecting local populations.

³⁶ See Fletcher et. al 2020 for a critical exploration of Costa Rica as an "eco-laboratory," and an exceptional, stable democracy in a region long characterized by civil strife and authoritarianism.

United States (Evans 1999).³⁷ In contrast, state environmentalism in Nicaragua has its roots in the Sandinista Revolution (Faber 1999; Stewart 2000), which I briefly discuss in chapters 1 and 2. In Nicaragua, Sandinista environmentalism has been reconfigured under the Ortega-Murillo regime, and played a role in Nicaragua's 2018 political crisis, which I address in chapter 1. This dissertation examines how Nicaragua and Costa Rica's conservation models and national environmentalisms unfold in a marginalized borderland territory. On the border, these different histories of environmentalism meet, and border residents, adopt and contest national(ist) claims to exceptionalism (especially those of Costa Rica) in their political mobilizations over water and abandoned wildlife refuges.

Borderwaters, rivers, and wetlands

I consider this dissertation a waterscape ethnography in part because the border region between Nicaragua and Costa Rica is as much a waterscape as it is a landscape. Porous, saturated, sometimes flooded, full of wetlands, shifting shorelines, and places difficult to get to—this border waterscape in a sense resists being known. And residents talked about it this way. This dissertation explores the role of the transborder rivers and wetlands of the Nicaragua/Costa Rica border region—and local peoples' relationships to these waters—in the making and unmaking of the border. I use the term “crossborder mobilizations” to refer to instances of borderland residents from both sides of the border joining together to mobilize around certain rivers and wetlands to advocate for their restoration or protection. Borderland residents moved back and forth across the border to organize, mobilizing their understanding of water's interconnectedness and adopting discourses of “water knowing no border.” They also draw on

³⁷ An organization called the Organization for Tropical Studies, founded in 1963 as a consortium of U.S. universities and scientists with the University of Costa Rica, played a key role in the development of conservation in Costa Rica. See Burlingame 2002 and Rocha and Braker 2021.

their shared histories, to which water was central (the era of “sin frontera” that I describe above and in chapters 2, 3, and 4), to save rivers and wetlands that they know and value as shared, borderless waters.

These kinds of crossborder mobilizations unsettle the border line and the national identities that it is supposed to contain and divide, because through them, residents demonstrate their loyalty to each other and care for their shared resources and landscapes rather than to either state. My analysis of how water mobilizes people, and how people mobilize around water, builds on anthropologist Fabiana Li’s (2016) work on water’s ability to “provoke” activism and reshape politics and socionatural landscapes—or, in this case, naturalcultural borderlands (Kim 2014).

While these crossborder mobilizations over water transgress the border and complicate delineations of territory, identity and citizenship, they also reinforce the border, echoing what Lim (2017) describes of migrants at the U.S./Mexico border as agents of erosion (of state sovereignty³⁸) and state formation. But borderland residents also invoke the border in this activism. In their protests to protect waterways and secure their access to water, they also articulate broader grievances and protest their marginal condition as border residents. Residents insist that water-use violations are part of a broader trend of state neglect in poor, marginal borderland areas, and they call on local and central governments to intervene. By calling on national governments to fix the problems, border residents reinforce the border as a meaningful division, even as they challenge it. This is one aspect of the making and unmaking of this border.

Geographer Francisco Solano from the University of Costa Rica brought to my attention that tens of thousands of years ago, this wetland region and the whole of what is today northern

³⁸ Lim’s use of the term “erosion” here is referencing Wendy Brown’s work (2010) on walls as an indication of the waning sovereignty of states.

Costa Rica were all submerged, part of what we now know as Lake Cocibolca.³⁹ In other words, the southern coast of the lake extended into what is today Costa Rica. This former shape of the lake is evident upon looking at a wetland map of northern Costa Rica⁴⁰, where the dark blue color representing wetlands blurs the middle portion of the border. I love imagining this former landscape and waterscape before there was a Nicaragua or a Costa Rica. This geological-historical image of the lake stayed with me throughout this project, reminding me of a deep time scale and how such a scale blurs contemporary human-made national boundaries.

Rivers were central to the Nicaragua/Costa Rica border region's historical development as a relatively independent, in practice borderless, region. Isolated from national capitals and in the absence of roads, a rich fluvial network of social, cultural, and commercial exchange developed along the region's many rivers. For over a century after the creation of the border, it operated as a single region connected by water. I return to this era of "*sin frontera*," or borderlessness throughout the dissertation because border residents' themselves (as well as many people who live outside of but are familiar with the region) referred to it often. People recalled the days when the "roads were rivers" and transportation and commerce was by water, bringing to life a "biographical landscape" (Raffles 2002:4) or waterscape, "at once material and fantastic...born from the politics of history and molded out of everyday life." This system flourished until the 1970s, when the Costa Rican government, aided by the U.S. government, began a concerted effort to reclaim its northern borders as the Sandinista Revolution gained traction in Nicaragua.

³⁹ Geologists theorize that Lake Cocibolca and nearby Lake Managua once formed part of an ocean bay that became an inland basin of two lakes as the result of a volcanic eruption.

⁴⁰ The map was produced by SINAC (Sistema Nacional de Areas de Conservación), the Costa Rican state institution responsible for protected areas, in 2018 as part of a national wetlands inventory.

Today, the border is more of a lived reality for border residents, but people still cross the border regularly and freely, sometimes via these same bodies of water. And people's historical relationships to these waterscapes—which transcend the border—persist into the present. Thus, while people no longer use them as much or in the same ways, the region's rivers and the lake remain key to residents' ongoing sense of interconnectedness. This becomes evident in the crossborder mobilizations over water that I describe in chapters 2, 3, and 4.

Water, of course, makes up many of the world's borders.⁴¹ The Río Grande, for example, makes up most of the U.S./Mexico border and has become an iconic image of the border.⁴² River and lake-borders have long been considered “natural” boundaries. Especially since the 17th century, the doctrine of natural frontiers, which assumed that landscape features such as rivers and mountain chains were natural boundaries, became a primary way of creating national territorial borders (Sahlins 1990). But as historians, anthropologists, geographers, and other scholars have examined at length, there is nothing natural about borders, even those drawn along natural features. Despite this convention of inscribing political boundaries onto physical features of the landscape, and making rivers dividers, often, from the perspectives of people living in and moving through borderlands and waters, such rivers remain connectors and integrators (Flynn 1997; Krause 2016). And, while water and especially rivers often form international boundaries, water also transgresses geopolitical boundaries (Bakker 2012) in ways that challenge the fixity of those boundaries. In this dissertation, I want to invert the idea that water makes borders, and that this is “natural,” and explore the ways in which water *unmakes* or at least unsettles one particular

⁴¹ A recent study by geographers Popelka and Smith (2020) shows that rivers constitute roughly 23% of the world's international borders.

⁴² In recent decades, the Río Grande has come to be associated with images of drowning and death of migrants who attempt the treacherous water crossing.

border. How do the presence and movement—or alternately absence—of water, and border residents’ mobilizations of water, make, remake, and unmake the border?

My attention to rivers and wetlands on the border builds on scholarship in anthropology, geography, and history that attends to the importance of border landscapes and environments (Cunningham 2012; Ramutsindela 2014, 2015) and how the physical environment and non-human actors shape processes of making, or conversely subverting or unmaking, the border (De León 2015; Sundberg 2011).⁴³ While there is a wealth of scholarship on the materiality of borders and borderland environments, it tends to focus on infrastructure and the built environment: customs buildings, migration posts, and especially security and securitization: fences, walls, armed border police, enforcement agents and outposts (Alvarez 2019; McGuire 2013). There has been less scholarly attention to the materiality of rural and open border areas where there are few or no barriers and a minimal enforcement apparatus (Reeves 2014). More attention to the environment and ecology within border studies can help shed new light on the permeabilities of borders (Cunningham 2012).

Landscapes, Hugh Raffles reminds us, “are always in motion, always in process” (2002:34). This is true of all landscapes.⁴⁴ So what does an emphasis on borderwaters open up, that borderlands may miss? Raffles, who himself writes of an amphibious region, draws our

⁴³ De León (2015) argues that the terrain of the Sonoran Desert is the “not-so-secret” weapon of U.S. border patrol. He shows how the federal government both uses and hides behind the viciousness of the desert, mobilizing discourses of “natural” environmental processes to disguise the impact of its border enforcement policies and practices: increased migrant death in the desert. In her work on the U.S./Mexico border, geographer Juanita Sundberg (2011) takes a posthumanist political ecology perspective to examine how the Sonoran Desert, particular plants, and wild cats inflect, disrupt, and obstruct the daily practices of boundary enforcement. She argues that taking non-human actors into account gives a clearer picture of the processes and politics of boundary enforcement.

⁴⁴ Historian Raymond Craib (2004) uses the term fugitive landscapes to describe spaces in which local people and land politically, culturally, and topographically confused and challenged the state’s efforts to fix space and create neat maps within the state of Mexico.

attention to how water makes places, and destabilizes and challenges our categories. Writing of river networks in the Amazon, Raffles writes (2002:43)

the porosity of the borders between earth and water in this terra anfibia marks another order of fluidity. It offers another opportunity to reflect on both the insubstantiality of categories and on the work that they accomplish: on the instrumental logic that holds apart the everyday from the historical, the natural from the artificial, the local from the global, the human from the non-human. We can follow these channels, swim in their waters, float in their currents...

Recent scholarship in the anthropology and geography of water draws our attention to the materiality and agency of water (Baker 2012; Bakker and Bridge 2006; Helmreich 2011; Orlove and Catan 2010; Barnes 2014; Edgeworth 2014; Ballesterio 2019), rather than approaching it as an inert resource.⁴⁵ An important insight of this work is that water's materiality resists total human control, or in Anand's (2011) words, water "exceeds politics and destabilizes its distribution regimes" (545). How does the materiality of water and wetlands matter for borders in particular? Attention to border waters and wetlands brings the fluidity of the border landscape and borderland relationships and identities into focus. I am interested in the ways that rivers and wetlands, border residents' relationships to these waters, and to each other through them, disrupt the border line. One of the principal functions of borders is to regulate and restrict movement of people and goods. Yet in many places borders do not actually fulfill this function. In the case of the Nicaragua/Costa Rica border, water plays a role in this.

Wetlands in particular, in their constantly shifting and in flux state, and as places that resist our easy control, are a particularly apt place for thinking through the porousness and

⁴⁵ Scholarship on the materiality of water has gravitated toward infrastructure in urban areas, focusing on pumps (Barnes 2012); pipes (Björkman 2015); canals (Carse 2012, 2014), urban potable water systems (Anand 2011, 2012). There has been less attention to rural waters.

indeterminacy of borders.⁴⁶ Open, flowing, porous, wetlands defy clear delineation: they do not have permanent boundaries and are constantly changing, due in part to seasonal shifts. Thus, the presence of wetlands on the border means a fluid, changing landscape. In chapter 2, I describe instances of wetlands complicating the placement of boundary stones, and some residents' understanding that the wetlands and many small rivers that make up the middle section of the Nicaragua/Costa Rica border pose a challenge to state border control. Local ways of talking about and understanding *humedales* (wetlands) and what they mean for the border, together with conversations in environmental history and anthropology about non-human agency, led me to think about the wetlands and rivers that cross and connect this border region as actors which unmake the border.

Physical geographers lament the difficulty, indeed impossibility, of identifying and mapping wetlands as discrete entities with fixed boundaries. Anthropologists have recently become interested in wetlands in part because of how they destabilize neat categories and efforts to control and demarcate (Ogden 2011; Cattelino 2015; Ballesterio 2019).⁴⁷ A much earlier anthropological engagement with wetlands is found in Zora Neale Hurston's work (1934, 1937), in which the southern environment and swamps in particular figured prominently. Hurston presents various figures of the swamp: its simultaneous danger and refuge; resistance to regulation and economic development; an ecological community; and as a "space existing outside the official public domain dominated by white supremacy" (Claborn 2018: 112).

⁴⁶ Wetlands themselves constitute border zones, albeit ambiguous ones, between land and water. They are ecotones, ecologists' name for the transition zones between two different ecological communities (see Holland et. al 1990), which often compose earth's richest, most diverse habitats.

⁴⁷ In her landscape ethnography of the Everglades, Ogden (2011) writes of how the movements of mangroves intersect with the mobilities of other human and non-human actors, forming constantly shifting territorial assemblages. Cattelino (2015) shows how even with the capacity for large-scale reclamation efforts, unruly wetlands like the Everglades have posed a problem for the project of U.S. settlement and development.

Wetlands are essential for life on earth, vital to human and other species' survival and to the health and availability of freshwater in particular.⁴⁸ Despite their crucial role in ecological and hydrological systems and being central to all of life, wetlands still have a somewhat troubled reputation, and are often considered peripheral landscapes.⁴⁹ Many people still view wetlands with disregard, and the word "swamp," which refers to just one kind of wetland (any permanently flooded and wooded wetland) continues to have negative connotations.⁵⁰ Donald Trump's presidential campaign promise to "drain the swamp" is case in point.⁵¹

Writing about the global floods of 2017, anthropologist Jason Cons (2017) suggests that the biopolitical paradigm of the Anthropocene might be the swamp, because the figure of the swamp speaks to critical themes of our time, themes highlighted by the 2017 floods: infrastructure and infrastructural failure; global inequality; and (im)possible futures and the crisis of hospitability.⁵² As climate change continues to take its toll and we see increasingly devastating floods and disappearing coastlines, anthropologists, Cons proposes, will increasingly

⁴⁸ Sometimes called the arteries and veins of the landscape, wetlands play a critical role in recharging aquifers by slowing runoff and allowing water to seep back into the ground; preserving water quality (by filtering out pollutants and excess nutrients); and providing natural flood control (by absorbing and storing water). In addition to being water sources and purifiers, wetlands are Earth's greatest carbon stores. The so-called reclamation (draining and destruction) of wetlands, which has happened on a massive scale globally, undermines these hydrological processes.

⁴⁹ In her natural history of wetlands, Vileisis (1997) describes how people and policies in the U.S. have long regarded wetlands as private property just like all other land, without understanding their unique hydrologic and ecological properties and "the essentially liquid nature of wetland landscapes."

⁵⁰ The term "wetland" began to replace the imprecise and value-laden term "swamp" in the 1950s, when ecologists first began to recognize and study wetlands. As scientists learned more about the critical importance of wetland ecosystems, an ecological ideology emerged and the term "wetland" came into scientific and popular use. The U.S. Fish and Wildlife Service adopted the term and popularized its use, primarily with regard to classifying and protecting waterfowl habitat (Vileisis 1997).

⁵¹ The phrase "drain the swamp," however, has a much longer history. First used in the mid-19th century, the term experienced a resurgence among U.S. politicians since Ronald Reagan used the term in 1984 to describe the need to "drain the swamp" of bureaucracy in the federal government, in relation to the proposal of the Grace Commission, an initiative to study, identify, and uproot inefficiencies in federal government spending.

⁵² Cons draws on Agamben's (1998) idea of the camp as the biopolitical paradigm of the modern: the space that opened up when the sovereign exception became the rule. For Agamben, camps "illuminated essential, if troubling, conditions of modernity."

have to turn their attention to “the damp: swampy spaces where distinctions between land and water break down” (52); dampness and flooding, he argues, are key tropes of the contemporary.

Cons makes an important point regarding how our human relationship to land and water is changing and will continue to change. But by proposing the swamp as a figure of the anthropocene without mentioning that swamps and other wetlands in fact have the potential to help mitigate the effects of climate change (because of the key role they play in flood protection, nutrient and contaminant removal, and water purification), he takes for granted negative stereotypes around swamps, thus risking reproducing negative stereotypes about wetlands, feeding back into the human-centered mindset that we are trying to get out of in the first place.⁵³

Central American borders

This dissertation also decenters dominant representations of Central American borders. Politicians, scholars and especially the media in the U.S. often represent Central American borders as places of violence, danger, insecurity, and crime: saturated with narco trafficking and gangs. Especially since the migrant caravans of 2017-2018 (see Martínez Hernández-Mejía 2018), migration is another and related key lens through which politicians, scholars and the media frame the U.S./Mexico and other borders in Central America. Migration from Central America to the U.S. became a major political issue beginning in the 1980s when migration from Central America surged as a result of intensifying civil war and unrest in Guatemala, El Salvador and Nicaragua. Since the 1980s, anthropologists too have made violence, insecurity, gangs and drug trafficking and migration major focuses of their research in the region, and especially of work on borders (see Burrell and Moodie 2015). Crisis, it seems, is the language of the border.

⁵³ Rather than a dark or troubling metaphor for the future or political problem, a healthy swamp or wetland—so vital to earth’s freshwater systems—could instead be a symbol of hope for a livable future, the kind of collaborative survival that Ana Tsing (2015) draws our attention to through the matsutake mushroom.

As scholars and proponents of immigrant rights have worked to highlight, the conditions of poverty and political instability in Central American countries, especially those of the so-called Northern Triangle—Guatemala, Honduras, and El Salvador—especially since the 1980s, and resulting migration trends must be understood as aftermaths of U.S. foreign policy and military intervention.⁵⁴ Justification for such intervention was cloaked first in the language of anti-communism during the Cold War, then of waging the War on Drugs; and most recently free-market neoliberal economic reform beginning in the 1990s.⁵⁵

Understanding and creating awareness about this very real violence and its structural roots is critical. And yet, dominant representations, by prioritizing violence to the exclusion of other everyday experiences and realities, risk sensationalism without actually deepening our collective understanding of the human and non-human inhabitants of these landscapes and places. At a time when migration, death, crime, crisis and violence dominate conversations and understandings of borders in Central America, this dissertation departs from this focus to offer a different view, returning us to the border as a place and landscape where people live, in an effort to challenge common stereotypes about the region's borders as only scary and dangerous places. My aim is not to deny the violence that exists on other borders of the region, but rather to say that violence is not all there is.

⁵⁴ The longer view would be to say over a century of policy and intervention, beginning with the 1823 Monroe Doctrine, which aimed to safeguard U.S. access to Latin America's resources and markets.

⁵⁵ The re-routing of the drug trade through the isthmus in the 1980s and 90s transformed Central America and Mexico. The drug trade's geographic shift came at a particularly vulnerable time in the 1980s when Central American countries had not yet recuperated from or were still in the middle of civil wars that were caused in large part by U.S. intervention. The rise in drug trafficking and the formation of powerful criminal organizations to facilitate this trade further destabilized these countries, and reshaped everyday life in Central America, which became known as one of the world's most dangerous regions, with countries like El Salvador, Honduras and Guatemala having some of the world's highest crime rates. As drug-trafficking and gang-related crime rose and poverty deepened, more Central Americans began to migrate in masse north to the U.S.

This departure is made possible by the fact that Nicaragua and Costa Rican border is among the safest and most peaceful in Central America. The Nicaragua/Costa Rica border is exceptional in another way, too. In addition to being one of the safest borders in all Central America, it is also the most unequal border in all of Central America. By standard development indicators, Nicaragua is the poorest country in the Western hemisphere next to Haiti. Costa Rica, the country of “social guarantees,” is the wealthiest and most developed in Central America (alongside Panama), and governments, development agencies, and multilateral institutions consistently cite it as a model for development in the region. For this reason, migration dynamics on this border are also exceptional: it is overwhelmingly Nicaraguans moving south to Costa Rica, making it the only significant southern migration flow in Central America. All the other significant migration patterns in the region are of Central Americans moving north to the U.S.⁵⁶ Scholars have written about migration between Nicaragua and Costa Rica (see for example Morales and Castro 1999, 2002), but my focus in this dissertation is on people who cross back and forth over the border every day, whose daily lives straddle the border.

Waterscape ethnography and research process

This dissertation is a waterscape ethnography.⁵⁷ Methodologically, this means following the water (Barnes 2014). Mezzadra and Neilson propose border as method (2013) and argue for

⁵⁶ This Nicaragua to Costa Rica migration route began for seasonal labor migration in the 19th century, but the first mass migrations of Nicaraguans to Costa Rica were refugees and economic migrants fleeing the civil war and resulting economic devastation in the 1980s. In 1989, there were, officially, 34,000 Nicaraguan refugees in Costa Rica. But the unofficial estimate was an additional 100,000 to 200,000 people living in Costa Rica without documents (Larson 1993). In the 1990s, migration to Costa Rica increased as the result of structural adjustment policies in Nicaragua which led to widespread unemployment and deepening poverty in an economy already devastated by the war (Otterstrom 2008), as well as growing demand in Costa Rica in construction, agricultural, and domestic services sectors. Today, according to the Costa Rican government there are an estimated 368,000 Nicaraguans living in Costa Rica, but there are an additional estimated 200,000 undocumented migrants (Mora 2021). Costa Rica, also home to 40,000 Venezuelan refugees, is the third most common migrant destination in the western hemisphere (Goldade 2011).

⁵⁷ Here I draw on Laura Ogden’s ideas about the idea of text as wetland and landscape ethnography from her work on the Florida Everglades. She proposes the metaphor of the mangrove as a guide to the text, as mangroves are

moving away from the wall as a paradigmatic icon of contemporary borders. This border-as-wall motif is especially present in debates over the U.S./Mexico border, in which the wall has become a symbol of the border, even while the Río Grande continues to flow. I propose water borders as a method, following the flows and stops of water across the border through time. Tracing various waterways around the lake and along the border, I followed the stories that emerged and saw where they took me, seeking to understand how bodies of water connect people and places materially and discursively.⁵⁸

I began the research for this project in Nicaragua in the summer of 2015 (May to June), and then conducted the second phase of preliminary fieldwork in the summer of 2016. I conducted the bulk of the research between September 2017 and February 2019. But the seeds for the project were first planted earlier between 2012 and 2014, in rural northern Nicaragua where I was a Peace Corps Volunteer working on small projects related to food security.⁵⁹ I lived in a small agricultural community made up mostly of smallholder producers of beans and corn in a drought-prone region known as the Central American Dry Corridor, and I happened to be there during one of the worst droughts on record. In between eating countless tortillas (the best I've eaten in my life) and the freshest, most delicious beans, I got to know people, mostly women, as I learned about everyday life and agriculture in the countryside, medicinal plants, local recipes,

highly mobile and rhizomic: "thinking as mangroves," she writes, "helps us map the movements of people, animals, water, nutrients, sediment, and plant life in the Everglades" (2011:90).

⁵⁸ The concept of watershed highlights ecological connectivity across borders and demarcates wider geographies of impact within a water system but lacks a way of representing or grappling with the deep social, political, and cultural aspects of water. Waterscape is one of the concepts anthropologists, geographers, and science studies scholars have adopted to highlight how water is not merely a natural resource of economic value, but also deeply social, cultural, experiential, and of course thoroughly political (Swyngedouw 1999, Baviskar 2007, Sultana 2011, Karpouzoglou and Vij 2017). Two other concepts through which social scientists attempt to do this are the hydrosocial cycle (Budds 2008, Linton and Budds 2014) and hydro-social territories (Boelens et. al 2016). The hydrosocial cycle concept also highlights how unequal power relations shape access to and distribution of water.

⁵⁹ The fact that the U.S. Peace Corps has its roots in the Cold War is a troubling aspect of my relationship to and positionality in Nicaragua. I did not, however, find my role as researcher and anthropologist less problematic.

and I listened to countless stories about how the revolution and war had shaped their lives and the surrounding hillsides. I have only a few memories of rain. Nationally, there was growing concern about how climate change would wreak havoc on the country's water sources, contributing to longer and more intense droughts and more floods. I became curious about how smallholder farmers cope with not having enough water and make sense of their situation in the context of the larger conversations happening around global climate change and national water resources. When I returned to Nicaragua in 2015 and 2016 to begin formulating my project, water was coming to the center of national politics in another way, as activists, scientists, students, and other citizens' protests against President Daniel Ortega's plan for the Nicaraguan Canal and for the protection of Lake Cocibolca were growing stronger.

This dissertation began as a project about water, but it did not start as a border project; I had no intention of doing research in Costa Rica. I began conducting research in Nicaragua, in lakeside communities and in Managua, through participant observation and interviews with local residents, NGO employees, scientists, activists, environmentalists, and government officials from the environmental ministries. In April 2018, I had been in Nicaragua for just over six months, when anti-government protests erupted in Managua and cities across the country. Building for weeks, the protests suddenly turned deadly when police officers and paramilitaries supported by the government began shooting and killing protestors. Chaos ensued as the country slid into a political crisis. My Fulbright grant was terminated early, and we were evacuated from the country. My research in Nicaragua thus came to an abrupt and premature end.

I spent the next ten months in Costa Rica, mostly on the border, which was as close to Nicaragua as I could get, and in the capital city of San José. I spent time in rural border communities, interviewed border residents, and attended community meetings to understand

everyday life, local water-use conflicts, and residents' relationship to the border and to neighbors across the border. I participated in various migratory bird counts to get on the water and get to know the wetlands better. I also interviewed government environmental ministry employees, scientists, academics, and NGO workers who had worked in the border region. While in Costa Rica, I attended protests of Nicaraguans in San José, as well as vigils for those killed. Meeting Nicaraguan migrants and refugees in San José helped me better understand the broader dynamics between Nicaragua and Costa Rica from another point of view.

Organization of the chapters

Each chapter focuses on a particular body of water and water conflict and looks at how people mobilize around water. The first chapter begins with Lake Cocibolca in Nicaragua. I take a political ecology approach to look at how mobilizations over the lake and environmental politics more broadly became a space for the deepening of authoritarianism in Nicaragua and people's responses to it between 2013 when the new canal project was announced until the 2018 political crisis.

Chapters 2, 3, and 4 move to the wetland borderlands, and examine different crossborder mobilizations over water on the Nicaragua/Costa Rica border in which local residents mobilize around transborder waters and protected wetland areas. Chapter 2 goes to Cocibolca's southern edges, down the Río Papaturro to a border community and wildlife refuge located in the wetland region between the lake and the border, and introduces the border waterscape. The chapter considers the drying up of the Papaturro River in 2015 and the resulting crossborder mobilizations to restore the river, as a window on the region's history, people's relationships to the border, and the making and unmaking of the border. I show how the Sandinista Revolution, Contra War, and postwar projects of the 1990s contributed to the making of the border, but also

led to greater instability and fragmentation of the region, and thus the unmaking of the border. The chapter shows how today, the border is simultaneously a strong presence demarcating two highly unequal countries, and an imaginary line ignored by most citizens on an everyday basis.

Chapter 3 follows the Río Papaturro upstream, just across the border to Las Camelias, Costa Rica, to examine borderland residents' responses to the death of a wetland lagoon in an abandoned wildlife refuge, which they attribute to water diversions by rice farmers upstream. I show how border residents and their crossborder mobilizations contest official state discourses of "water belonging to the state" and Costa Rica's "green exceptionalism" (Gutiérrez and Granados 2020), and in the process challenge ideas about national waters and national natures on the border.

Chapter 4 moves east to the Río Frío, a transborder river key to the border region's history and settlement, and the border town of Los Chiles. This is the place where I began this introduction and where the rapid advance of the "*frontera piñera*" or pineapple frontier has led to crossborder mobilizations against the pineapple industry's contamination of rivers, wetlands, and groundwater aquifers. I trace the history of how pineapple arrived in this region and the development of the pineapple industry, a history closely linked with state border making projects that began in the 1970s. The chapter examines how the harmful economies and ecologies of intensive industrial agriculture—and neoliberal capitalism more broadly—both destabilize and reinforce the border, the latter primarily through reproducing structural inequality. I also explore how pineapple has generated debates over water and conservation in the border zone, in particular the *corredor fronterizo*, a border wildlife refuge that extends along the whole border line.

Together, the last three chapters highlight how border residents' navigate the border and mobilize around transborder waterways amid state border making projects, unequal forms of agricultural development, extractive projects, and environmental change. Through their daily movements and collective political mobilizations, border residents both disrupt the border and reinforce it, by calling on the state to act in these marginal, abandoned border communities. The chapters also point to the sometimes subtle ways in which border residents and land and waterscapes challenge territorial boundaries, state authority, corporate control, and the border's logic of division.

Chapter 2. Lake Cocibolca

“...this gigantic mirror, crystal of our history where our dreams and frustrations are reflected...”
- Pablo Antonio Cuadra

“the revolution is the lake with fish in it for everyone”
- Juan Agudelo

Lago Cocibolca, also known as Lake Nicaragua, el Gran Lago, or el Mar Dulce, lies in southwestern Nicaragua. It is Central America’s largest lake and most important source of freshwater. In Nahuatl, Cocibolca means “the place or nest of the Great Serpent.” The Serpent in Mesoamerica was the symbol of the movement and dynamism of the land, and the seeds of life. Sometimes called *la joya* or the gem of Nicaragua, the lake’s shore and islands were home to the region’s earliest indigenous inhabitants and are now home to the country’s oldest and most important archeological sites.¹ Today, the lake continues to sustain the livelihoods of hundreds of thousands of rural and urban dwellers, through fishing, irrigation, boating, tourism, and drinking water. Over half of the nation’s population lives in its watershed. The lake is also home to the world’s largest freshwater volcanic island, Isla de Ometepe, which has two volcanos that rise above the lake’s waters, forming one of Nicaragua’s iconic landscapes.²

The lake has always played a key role in Nicaraguan history, culture, and politics. Cocibolca inspired the Granada-based writers who formed Nicaragua’s literary Vanguard movement, reflected in Pablo Antonio Cuadra’s 1971 epic poem *Cantos de Cifar y del mar dulce* (Songs of Cifar and the sweet sea), which is a literary geography of the lake and the people who

¹ Although archaeologically Nicaragua is one of the most poorly documented countries in Central America.

² Nicaragua is often picturesquely described as the “land of lakes and volcanoes.”

inhabit the lake's shores and islands.³ The liberation theology inspired artistic and spiritual community started by priest, political figure, writer, and later Minister of Culture Ernesto Cardenal, on the lake's archipelago of Solentiname in 1965, helped frame the ideals of the Sandinista Revolution and popularize them to the outside world.⁴ Solentiname became an important place for gathering international support for the Sandinista cause, and through the paintings of islanders, images of Nicaraguan nature, cultural tradition, and life on the lake became symbols of the revolution and the bright future that was within the reach through the revolution.

The future of the Nicaraguan nation has always seemed to hinge on the lake. Lake Cocibolca as key to Nicaragua's future and development is a narrative as old as the nation itself. Lake Cocibolca, its waters, islands, and the imaginaries, projects, plans, and visions for the future that they have inspired, have played a major role in national dreams and notions of development in Nicaragua over time, most notably in plans for a transoceanic canal. The idea of a Nicaraguan canal has a long history; the first survey for a possible canal project was conducted by Spanish colonists in 1551. Since that time, Nicaragua's waterways, namely Lake Cocibolca and the Río San Juan, have been at the center of colonial, geopolitical, and imperial schemes and interventions, and the idea of the canal has circulated in and out of national and international

³ As the title suggests, it is not just Cifar the poem's main character who speaks and sings, but also the lake itself. The first English edition of the poem was published in 1979, see Cuadra 1979. For a discussion on how *Cantos del Cifar* brings the lake to life as a more-than-human actor, and the more-than-human in Cuadra's poetry more broadly, see White 2002.

⁴ Poetry and literature have played an important role in Nicaraguan politics through time. Ever since Ruben Dario, Nicaraguan poet who started the Spanish-American literary movement known as *modernismo* (modernism) toward the end of the 19th century, Nicaragua is a country known for its poets and poetry. Cardenal was one of several literary figures at the forefront of the Sandinista movement; literature and literacy played a pivotal role in reimagining the nation during the 1970s and 1980s. Additionally, some of the best accounts of the Sandinista Revolution are found in literature and memoirs, see Belli 2002. For this reason, some scholars have taken literary approaches to the Nicaraguan nation. See, for example, Henighan 2014.

politics. For centuries, the idea of a canal has dominated understandings of and representations of Lake Cocibolca, just as it dominated U.S. relations and imperialism toward Central America for nearly a century beginning in the early 19th century (Hill 1948). Politicians, foreign governments, and elites have presented Cocibolca as key to the nation's modernization, development, and future through the canal. Throughout the 19th century, Nicaraguan elites promoted the canal as destined to single-handedly modernize the nation.⁵ In addition to the centuries-old canal project and its periodic reappearance in Nicaraguan politics, other lake-centered initiatives have been promoted as being the key to national development—mega-irrigation works, multi-million dollar attempts at binational water management (one third of the watershed lies in Costa Rica); and most recently a lake-sourced potable water project in a coastal city promoting a “new culture of water.”

Over the past decade, the lake has once again come to the forefront of Nicaragua's national politics, now in a slightly new way. Historic drought, growing concerns about climate change, a perceived water and environmental crisis, and the reemergence of the canal proposal have led campesinos, environmentalists, scientists, development actors, and other concerned citizens to mobilize in different ways around the lake. They have put the lake at the center of debates over environmental decline, water scarcity, future water security, the country's economic development, and national sovereignty. Growing discontent with President Daniel Ortega's authoritarian rule is contributing to these debates. As government officials and foreign investors make claims to the lake for the canal, and the Ortega-Murillo administration makes claims to

⁵ Town hall meetings, entire newspapers, and Nicaragua's exhibitions at the World Fairs, projected a “canal-centered image of a cosmopolitan nation” (Gobat 2005: 46); canal resolutions, treaties, and visiting survey expeditions were publicly celebrated. For more on the canal project, see Folkman 1972, Esch 2008, Brannstrom 1995, Clayton 1987, Girot 1994, Gobat 2005, Kinloch 2015.

environmentalism, different citizen groups contest these claims and make their own claims to the lake, as well as the country's waters, land and forests.

The field of political ecology, a term first coined by anthropologist Eric Wolf (1972), demonstrates that environmental issues are always political and that contests over the environment are critical sites for the negotiation of meaning, value (Li 2015), identity (Muehlmann 2013), and a way for people to imagine and fight for different futures (Rademacher 2011). In this chapter I take a political ecology approach to analyze how different actors value and mobilize (and mobilize around) the environment in different ways for different political purposes, and to highlight the role that these debates over the environment played in Nicaragua's 2018 political crisis.

Part one focuses on debates over water. Amid a drought, growing concerns about climate change, and the re-emergence of the canal proposal, many Nicaraguans considered that there was a national water crisis. I show how Lago Cocibolca became a renewed subject of scientific, citizen, and political concern, and emerged as a protagonist in debates over the future of not only Nicaragua's water and other natural resources, but also of the nation itself. I look at how water emerged as a contested entity (Li 2016) as various actors and groups mobilized Cocibolca in different narratives and visions for the future.

The drought and the canal controversy emerged in an increasingly tense political climate and growing sense of environmental and political crisis in Nicaragua. In part two, I examine the conflicts over Ortega's so-called *árboles de vida*, or trees of life, his administration's claims to environmentalism, and I briefly trace Ortega's return to power. I look at how government agencies capitalized on the symbolic value of the environment, citizens appropriated the *Árboles de vida* in their environmental movement and to critique the changing face of Sandinismo and

Daniel Ortega's increasingly authoritarian regime that continues to make claims to a socialist, revolutionary past and present. Part three briefly explains the initial events of the 2018 uprising against Ortega, which began with a forest fire in Indio Maíz, one of Latin America's most important forests and centerpiece of the country's environmental movement. I trace the role environmental movements played in the political uprising against Ortega's government. Taken together, parts two and three show how environmentalism and environmental politics played a role in both the Ortega government's deepening authoritarianism and people's resistance to it. In the conclusion, I describe how my exit from Nicaragua led me to other waterways, some of the lake's tributaries, and to the border.

The other broad aims of this chapter are first, to introduce the lake that forms the center of the waterscape (Swyngedouw 1999; Baviska 2007; Sultana 2011) that is the subject of the rest of the dissertation, and second, to provide context on Nicaragua's political situation that forced me to leave the country and unexpectedly transformed this project into one about the border, rather than about the lake. This chapter is somewhat disjointed. That disjointedness reflects the abruptness of events in Nicaragua in April 2018 and gives a sense of how my experience conducting research was interrupted. Lastly, by looking at mobilizations over water—the lake and the canal—I introduce one of the main themes of this dissertation: how people mobilize around water and the environment to not only protect water but also to raise broader political concerns.

A drought, the canal, and contesting the future of Lake Cocibolca

In 2013, Nicaragua entered what would become one of the worst droughts on record, which lasted until 2016. By 2014, stories of dried up rivers and wells, communities without drinking water, and desert-like images of what had been fertile agricultural fields filled the news

media. I was living in a small agricultural village in northern Nicaragua during this time and watched out-migration increase as families lost entire subsistence corn harvests, dozens of cattle starved to death, and more men gave up farming and migrated to Costa Rica or north to the U.S. The drought led to widespread concern that water scarcity due to climate change would devastate agricultural production and food security in a country whose people and economy depend on agriculture.

Largely because of Lake Cocibolca, Nicaragua has the most freshwater of any country in Central America. This abundance of water is key to some of the country's national narratives. It was also key for Spanish conquistadores and colonialists who named the area for its water. Nicarao was thought to be the name of the cacique of the Pipil-Nicarao indigenous people who inhabited the shores of the lake and what today is southwestern Nicaragua, and *agua* means water in Spanish.⁶ The lake shore was one of the region's ancient population centers. Still today, the majority of the country's population is concentrated in cities around the lake. One of the opening statements of the main permanent exhibit of Nicaragua's National Museum in Managua is, "Nicaragua: a country of water." The museum sits in the historic Plaza de la Revolución near the shores of Lake Xolotlán, Nicaragua's second largest lake. The exhibit walls are painted deep blue and read in large letters, "Nicaragua is a land abundant with water, from the region's largest lake to its most historic river, Nicaragua's waterways are an important part of its national identity."⁷

⁶ In 2002, Nicaraguan scholars such as Edwin Sanchez determined that the leader's name was actually Macuilmiquitzli. Sanchez attributes this knowledge to Nicaraguan doctor, writer and poet Fernando Silva and his 1965 work *De Tierra y Agua*.

⁷ The museum, which also houses the national archives upstairs, is one of the few original buildings still standing after the 1972 earthquake that destroyed much of the city. It is adorned by huge posters of national hero Sandino on one side, and Carlos Fonseca, founder of the Sandinista National Liberation Front (FSLN) on the other. Water features prominently not only in the natural history displays, but also in those detailing the cultural heritage of what is today Nicaragua and how the region's earliest indigenous inhabitants relied on the area's rich water sources.

Despite the country's richness in water, over half of the rural population lacks access to safe and clean water. Smallholder farms across the country consistently encounter water insecurity, especially those in *el Corredor Seco* or the Central American Dry Corridor, a drought-prone region which makes up nearly one third of Nicaraguan territory (north-central and Pacific regions) and is home to many of the country's smallholder producers of basic grains and coffee.⁸ The export agricultural and industrial sectors use huge amounts of water; and, critics say, their water-use is unregulated and hugely undertaxed. According to water expert, activist and former director of Nicaragua's public water utility ENACAL (*Empresa Nicaragüense de Acueductos y Alcantarillados*), Ruth Herrera (2014), 70% of groundwater extracted in the country goes to large producers to irrigate enormous fields of agroexports such as sugarcane, peanut, and rice. Another 15% goes to industry, including bottled water, beer, rum, milk, and juices, which are also in the hands of large producers. Only 6% of groundwater extracted is for human consumption.⁹ Most private companies do not pay for water even though they are the principal users and are contributing to the accelerated deterioration of aquifers.¹⁰

The drought made the absence and precarity of rural water infrastructure, and the stark inequalities in water distribution and access, more visible. Due to the water crisis, people became acutely aware of the problems of unequal water distribution and access, and the coexistence of water abundance and water scarcity. Cocibolca thus became the center of a larger question and

⁸ The Corredor Seco stretches from southern Mexico to Panama, and the stretch between Guatemala, El Salvador, Honduras and Nicaragua is the most critical in terms of drought and vulnerability to climate change. In Nicaragua, the Dry Corridor has historically been a top target of development interventions such as food security projects and more recently climate change adaptation projects, and of food aid.

⁹ Herrera (2014) also notes that in the Pacific and north-central regions of the country, the most populated regions, 90% of water for human use comes from groundwater. These regions are also where 93% of all groundwater in Nicaragua is found.

¹⁰ This was a point of contention between civil society organizations, the government, and COSEP (*Consejo Superior de la Empresa Privada*) or Superior Council of Private Enterprise, leading up to the 2007 water law. The resolution, which did not come until 2011, mandated that only bottling industries have to pay a tariff of .5 cents for each cubic meter of water consumed (Herrera 2014).

paradox: how can the country have so much water and yet so little?¹¹ Water resources in Nicaragua, a country long celebrated for its abundant waters, suddenly seemed in crisis and their future precarious. When I interviewed the General Director of Water Resources of INETER (*Instituto Nicaragüense de Estudios Territoriales*, or Nicaraguan Institute of Territorial Studies) in 2016, he reflected on this paradox of abundance versus scarcity:

For the moment, forget if we have abundance or scarcity. Forget about climate change. What is certain is that the population is increasing, and we are contaminating our lakes and rivers more and more with pesticides and garbage. Therefore, water availability for human use is decreasing every day. The question then, is not if we have water or do not have water, or how much water, but rather how we manage and protect the water that we have.

This perspective echoed some activists' call to not blame everything on climate change, but rather look at current water management practices to understand the water crisis.

As the drought worsened, concerns about climate change and actual and future water availability grew. At most conferences and events I attended, activists, scientists, and environmentalists cited climate models for Central America that predict increasingly severe droughts and declining water availability. "The future of water in Central America is bleak," remarked one scientist at a conference on the need for binational watershed management of Lake Cocibolca. At conferences, in development reports and policy documents, and in the news, experts forecasted that as other sources of water dry up, more and more of the population will have to get their drinking water from the lake. Development actors and scientists increasingly pointed to the lake as an essential source of drinking water and the foundation of the country's future water security. The lake is already the primary source of drinking water for 200,000 people, and that number is expected to grow significantly in the coming decades. Experts say, for

¹¹ Francisco Jerez (2007) and others noted this paradox before 2014, in an article titled, "A country with a lot of water and a lot of thirst."

example, that within 20 years, Managua will have to get its water from the lake. Some experts and development actors also mentioned the viability of using the lake for major irrigation systems which would ensure food security as groundwater aquifers of the Western plains dry up. The possibility of exporting water from the lake was another point that emerged in debates over the future of the lake. Some commentators argued that exporting water to other Central American countries would be more profitable for Nicaragua than the canal.

Meanwhile, the health of the lake was also of growing concern. Even prior to the drought, canal plans and increased concerns about climate change, environmentalists and scientists had been warning that the health of the lake is sharply declining, due to contamination from agriculture, rampant deforestation in the watershed, and lack of adequate wastewater treatment in coastal cities. Deforestation, largely for extensive cattle ranching, has led to soil erosion, resulting in high rates of sedimentation. In reference to alarming rates of sedimentation, limnologist, lake advocate and Nicaragua's foremost water expert Salvador Montenegro Guillén wrote in 2013, "Cocibolca is drowning." Intensive rice production on the lake's northern shores and industrial sugarcane cultivation to the west use lake water for irrigation and have led to over-extraction of some of the lake's tributary rivers as well as agrochemical run-off. Agrochemical contamination and sedimentation coming from Costa Rica is another major concern. Mining run off also threatens the lake; an organization called the Platform for Water and Life, which I describe further below, has been speaking out against water contamination from illegal open pit gold mining by Canada-based company B2Gold in the department of Chontales, which lies on the lake's northeastern shores.¹²

¹² The company also displaced a longtime small local mining cooperative which engaged in limited, underground mining and which had provided income to 700 residents for years.

A World Bank report from 2013 painted a grim picture of the lake's health and confirmed that climate change is expected to significantly affect the water balance and severity of the existing sedimentation problem.¹³ Amid the drought, Cocibolca's water levels had reached historic lows. In 2015, the lake's water levels declined so drastically that the National Port Authority (*Empresa Portuaria Nacional*) ordered the temporary suspension of all boat traffic. People living on the lake's islands and along its shores said they had never seen the lake so low, and fisherfolk, farmers, boat drivers, and those who rely on lake-based eco-tourism became worried. Discourse about the drought, framed around climate change and future water scarcity, came to focus on Lake Cocibolca as either an assurance of long-term water security or as a harbinger of doom.

Some state officials and development actors blamed the drought on an unusually intense El Niño/Southern Oscillation (ENSO), the Pacific Ocean warming phenomenon, and global climate change. But many environmentalists, scientists and citizens pointed out that while it is convenient to blame global climate change, the principal causes of the drought were closer to home: uncontrolled deforestation, unsustainable agriculture, and especially extensive cattle ranching within the lake's watershed. While acknowledging the role of global climate change, scientists, activists and concerned citizens pointed to the drought and other water problems as evidence of what they claimed was an ongoing water and environmental crisis—due in part to government neglect, mismanagement and corruption. In a 2016 interview, Salvador Montenegro, referring to the country's water crisis, warned, "This is a collective suicide" (González Centeno

¹³ The study assessed the sources and the magnitude of the pressures that threaten the lake, confirming that sediment loads were very high and mapping out the magnitude of sediment in each sub-section of the watershed.

2016). The drought intensified concerns over the future of Lake Cocibolca as a freshwater reserve, not only for Nicaragua but all of Central America.¹⁴

As concerns about water grew in various sectors of the population, so did debates about causes of and responsibility for the water crisis, as well as what to do about it. In 2018, I attended an event at Managua's Universidad Nacional Agraria (National Agrarian University) for World Water Day, hosted by the Faculty of Natural Resources and Environment, in which representatives from various organizations and NGOs led sessions ranging from the global water crisis to domestic issues such as the role of water in sustainable cattle ranching, participatory climate change forecasting, innovative technologies for farmers in the Dry Corridor, and a small company's work on water storage alternatives and groundwater recharge. During the break, I chatted with a group of Nicaraguan development professionals, many of whom had studied in Cuba or Russia in the 1980s as part of Sandinista educational exchange programs. (This was very common.) One of them, Nelson, was currently consulting for a World Bank initiative to help the Nicaraguan government prepare a national water management plan, and he explained that one of the main ideas coming out of the study was the possible project of investing in a drinking water project for Lake Cocibolca.¹⁵ "One of the only ways such a project could happen is with private investment," he said, "a private company would come, build the infrastructure and stay for a certain number of years to run the system and earn back its investment by charging water users.

¹⁴ While there are no concrete plans to export water that I know of, development actors and government officials have pointed out the possibility of Nicaraguan exporting water in the future, especially as it grows increasingly scarce in other countries of Central America. I met a U.S. stock market investor in Managua familiar with emerging markets for water futures who was very interested in Lake Cocibolca in this regard and was therefore also very interested in my research.

¹⁵ Such a project would be in addition to the multibillion-dollar project already underway, *Mejoramiento y ampliación de los Sistemas de Agua Potable y Saneamiento en 19 ciudades de Nicaragua*, which is providing new water and sanitation systems to 17 cities in Nicaragua, including a few on the shores of the lake for which the water source is the lake. The project is part of PISASH or *Programa Integral Sectorial de Agua u Saneamiento Humano*, and funded by the European Commission. I observed the unfolding of this project in San Carlos.

But privatization is a very delicate theme here...” He was referring to the anti-privatization movement that emerged in Nicaragua in 1999, in response to an IMF proposal to privatize the country’s water, which was ultimately successful (see Romano 2012).

The second World Water Day event I attended was hosted by an organization called the Plataforma de Agua y Vida (Platform of Water and Life) and had a tone distinct from that of the first. The Platform is run by Ruth Herrera, former director of ENACAL, the state water utility, and is made up of community groups from around the country. The event was locally focused on Managua’s groundwater. “Managua is a time bomb,” began one speaker. She proceeded to show a water availability map of the country, “As you can see, we have water. Water scarcity is a political issue.” Her talk focused on Managua’s water system and how poor and vulnerable the city’s drainage system is due in part to poor management and planning, and a lack of political will. Next a hydrogeologist who has done extensive research on the city’s water systems gave a presentation about the grave state of the area’s aquifers, which are being overexploited. He provided a historical overview of the various studies that have been done, all since the 1970s and all funded by outside agencies, governments, and companies. He noted that as early as 2000 there were serious concerns about the overexploitation of Managua’s aquifers. “At the current rate of extraction, mismanagement, and urban growth within 30 years Managua will have to get water from Lake Cocibolca,” he stated. In the last part of the forum, residents of Managua spoke about various water problems in their corners of the city such as contaminated streams running through their neighborhoods. The most striking difference between the two events was that the first was largely anti-political and focused on technical solutions to water problems, whereas the second began from the premise that water problems are political problems, unfolding in the particular political context of Nicaragua. A clear illustration of this difference was that the first

event was silent about an issue that the second event addressed directly, and which had become central to the national conversation about water: the resurgence of the canal proposal.

On June 13, 2013, just around the time the drought began (although its severity was yet unknown), the Nicaraguan Congress passed a law¹⁶ permitting the construction of a transoceanic canal, which would cut across the lake. The law granted the rights to build and operate the canal to a Chinese firm, HKND (Hong Kong Nicaragua Development Investment Company). The concession to HKND, a 50 billion dollar contract with a 50-year lease renewable for another 50 years, consisted of at least ten sub-projects including two ports, one on the Pacific coast and the other on the Atlantic; an international airport; major highways; new free trade zones; and tourism complexes. The project also planned an artificial lake of 395 squared kilometers, steel and cement plants, and electricity plants.

Activists criticized the secrecy around the canal concession and law; they were negotiated in secret by the government, the public was never consulted, and there were no previous social or environmental impact studies or government mandated risk assessment processes. They also argued that the law is unconstitutional, violates human rights, and threatens Nicaraguan sovereignty. Whether or not the canal is ever built, they argued the law could be used to expropriate large areas of land, which some suspect is the actual motivation for the law. In her book *Entrega de Un País* (2017), lawyer, activist, and director of NGO Fundación Popol Na Mónica López Baltodano, details the concession and how it legalizes the private appropriation of the country, its land, and its resources, guaranteeing 116 years of “absolute rights” over the country’s most valuable and strategic natural resources including Lake Cocibolca to a private investor. Baltodano explains how the concession hands over public lands including protected

¹⁶ Ley No. 840. Ley especial para el Desarrollo de Infraestructura y Transporte Nicaragüense Antigente a el Canal, zonas de libre comercio e infraestructuras asociadas.

areas, private properties, and communally held lands of indigenous and afro-descendant groups, along the canal route to the private company, displacing tens of thousands of farmers, indigenous people, and people of African descent (more than 119,000 producers and campesinos inhabit the canal route) and “leaving the Nicaraguan people subject to a disgraceful regimen of expropriation” (3). While it stipulates the land along the canal route, the law also opens the door to making it easier for foreign companies to expropriate land anywhere in the country. The law is also unconstitutional because it permits this expropriation without proper compensation and without guarantee of resettlement: the project does not meet international requirements for expropriation. Furthermore, HKND would not pay any taxes on the project or its many sub-projects.

Many Nicaraguans were also concerned that the canal law was a loss of Nicaragua’s sovereignty, giving too much power not only to one Chinese company but to foreign powers in general. In addition to permitting land grabbing and giving inordinate power to HKND, the canal law also changed the way foreign companies in general can enter and operate within the country. Baltodano and other opponents argue that the law is most destructive because it shields foreign investors from oversight by Nicaraguans. It shields investors from having to comply with national law, so that Nicaraguans cannot apply civil, penal, or administrative sanctions within Nicaragua, thereby transferring legal power to tribunals of arbitration abroad. In this way, the law changed the Nicaraguan Constitution to benefit not only HKND but all private companies. “Under the illusion of the canal,” Baltodano writes, “the concession hides a countless number of possibilities for private economic interests and geopolitical interests... the underlying interests of the project...Including the possibility that the canal will never be constructed.” She presents a possible scenario in which the government and company never construct the canal but keep

manipulating the illusion of it to advance other capitalist interests and projects. In this way, the canal law permits the private appropriation of Nicaragua, its land, forests, waters, and other resources and thus the dispossession of the majority of Nicaraguans.

President Daniel Ortega proudly announced the project, publicly celebrating it as the “revival of a centuries long national dream,” the second phase of the Sandinista Revolution, and a guarantee of the nation’s future development and prosperity. “It is the destiny of our nation to have a canal,” read much of the government propaganda, echoing much of the discourse from the 19th century. For Ortega, Sandinista government officials, and citizens in favor of the canal, Lake Cocibolca was the national resource that would make the canal possible and finally bring long-awaited economic development and national prosperity. The canal would eradicate poverty.

Public opposition to the project was swift and fierce. Campesinos and communities whom the project would displace, environmentalists, scientists, and other concerned citizens quickly mobilized to oppose the project and formed a robust anti-canal movement against the displacement and dispossession of smallholder farmers, ecological harm—especially to the lake, and the threat to national sovereignty that the canal would bring. Critics urged that the canal would irreversibly damage Lake Cocibolca and put the country at greater risk to the negative effects of climate change (Campos 2014). Campesinos and protestors called Ortega a traitor and seller of Nicaragua’s sovereignty (to China). Coalitions were built as prominent environmental NGOs such as Centro Humboldt and Popol Na, as well as various academic and research institutions such as Nitlapan and the Nicaraguan Academy of Sciences, joined with campesinos and students to speak out against the canal project and what they saw as the government’s anti-environmental policies. Beyond environmental organizations and the scientific community, opposition to the canal united diverse sectors, organizations and institutions.

In July 2014, a “technical team” of HKND representatives, accompanied by Nicaraguan military and police forces, began conducting property and land surveys all along the canal route and areas of the associated projects, in some instances entering peoples’ farms and homes without authorization. Rural communities and activists denounced the violation of their property. This became a turning point and led the growing anti-canal movement to explode with the support of rural, agricultural municipalities. At the forefront of the movement was the *Consejo por la Defensa de la Tierra, Lago, y Soberanía*, or the Council for the Defense of the Land, the Lake and Sovereignty, a coalition of campesinos, indigenous groups, and urban environmentalists that had formed in November 2014 in the department of Juigalpa and led by a woman and farmer named Francisca Ramírez, one of the people that the canal project threatened to displace. The *Consejo* was dedicated to repealing the canal law and defending their land and the lake (see Serra Vásquez 2016), which they did in part by educating campesinos about the law in order to effectively oppose it, and through a series of national marches. One of their slogans was, “Without the canal, we can live. Without water we die.” Members of the anti-canal movement put the lake at the center of a new water activism in which saving Cocibolca from the ecological catastrophe that the canal would bring was integral to the defense of their human rights, their lands and their agricultural way of life. By the end of 2014, campesinos and indigenous groups, environmentalists, scientists, other concerned citizens and opponents of the Ortega government had formed a strong, national anti-canal movement to defend and protect their land, Cocibolca, and Nicaragua’s sovereignty. It was Nicaragua’s largest social movement since the 1979 revolution.

In 2015, eight environmental and civil organizations formed a coalition called Grupo Cocibolca to protest the law and protect the lake. The coalition began making formal public

statements denouncing the canal project and holding forums in municipalities around the country to raise awareness about the project's illegality and potential devastating consequences. Activists and citizens became intimately familiar with and began to mobilize two laws in their movement against the canal, defend their land, and protect water: ley 840, the canal law, and ley 620, the national water law. Widely distributing the text of the canal law was an effective strategy to spread awareness about the project's secretive details and how it threatened the country and to rally opposition. In 2015, a group of scientists and members of the Nicaraguan Academy of Sciences published an information-packed, meticulously-researched book about the canal project titled *The Interoceanic Canal through Nicaragua: Contributions to the Debate* (Huete-Perez et al 2015). In addition to containing the full text of the law (in Spanish and English), the book discusses in detail the ecological and environmental impacts of the project; economic and social risks; and the legal issues surrounding the concession. Members of the Academy of Sciences and activists distributed the book widely at meetings and environmental conferences and events to spread information about the details of the project, which the government had shrouded in secrecy.

I received a copy of the book at a conference held at the Universidad Centroamericana (UCA or Central American University) in 2016 about saving Bosawás, one of the largest contiguous tropical forests in Latin America (second only to the Amazon) and biosphere reserve located in the northeastern part of Nicaragua. Over the past decade, Bosawás has become a site of illegal logging for cattle ranching and violent confrontation between mestizo colonists and Mayangna and Miskito indigenous people to whom the land belongs. The person passing the book out to me and other attendees, a biologist and UCA professor, advised us to be careful, given the political sensitivity of the canal issue and the government's growing crackdown on

activists and opponents. Later that year, Jorge Huete-Pérez, scientist at the UCA and one of leading authors of the book, published an editorial piece in Science Magazine, titled “Rethink the Nicaragua Canal” which helped draw international attention and support for the cause (Huete-Perez et. al 2015).

Environmental organizations and other opponents to the canal project also started educating people about Nicaragua’s national water law, ley 620, which includes a clause about protecting Cocibolca and its importance as a natural reserve and source of drinking water. At events, activists passed out a small pocket version of the law, a little white book that had a watershed map of Nicaragua on the front and a photograph of the Río San Juan and image of Ortega and Murillo on the back, and directed people to Article 97 which begins:

The state, together with municipal governments, municipal associations, the private sector, non- governmental organizations, and the population at large, is responsible for the protection, conservation and proper use of the waters of the Great Lake of Nicaragua or Cocibolca. This lake shall be considered a natural reserve of drinking water, of the highest interest to the country and utmost priority for national security.

Activists also pointed to the national water law’s emphasis on the state’s responsibility to prioritize the need for citizens’ drinking water over other uses.

Far from ignoring potential environmental criticisms, Ortega’s government made environmental concerns an integral part of how they promoted the canal project. The government media outlet La Voz de Sandinismo ran periodic articles updating the public on the environmental impact studies, “The environmental impact of the Grand Canal will be positive,” read one report (Voz de Sandinismo 2015). “The concessionaire of the Grand Canal assures respect for biodiversity” stated another. Another series framed the new canal project as a “natural” project, which would fit within the “natural order.” Government communications about the project emphasized that HKND was conducting thorough environmental impact studies and

assured the public and international community that the project would be carried out with the upmost care for the forests and waterways in its path, even improving the ecosystems—an outlandish claim.

HKND had hired British consulting firm ERM (Environmental Resources Management), who in turn contracted a Nicaraguan environmental NGO called FUNDAR (Fundación Amigos del Río San Juan) or Foundation Friends of the San Juan River, to conduct the studies. FUNDAR has been working in the Río San Juan and around the lake for many decades. When people living around the lake who had worked with FUNDAR learned of this, they felt betrayed. One resident of Papaturro, one of the communities on the lake's southern shore, joked that FUNDAR is "*amigos del canal*," or "*del gobierno*," friends of the canal or the government—not of the Río San Juan. When I interviewed the director of FUNDAR in 2017, he freely spoke about the organization's early work in the rural communities along the Río San Juan and Lake Cocibolca but denied having worked on the canal project. The first part of the environmental impact study was a baseline biodiversity survey for which FUNDAR scientists hired 80 scientists. Leading critics of the canal project including many scientists argued that the study, paid for by HKND and carried out by FUNDAR, was politically compromised. They criticized the scientific merit of the study and called for an independent review. The government refused to make the report public.

Within debates over the canal, the drought, and environmental crisis, the future of Lake Cocibolca became synonymous with the future of the country. For Ortega, Sandinista government officials, and citizens supportive of the canal, the lake was the national resource that, with the canal, would bring long-awaited economic development and national prosperity. Development actors, scientists, and environmentalists focused on Lake Cocibolca as a crucial

source of freshwater and drinking water: the foundation of the country's future water security amid climate change models predicting future water scarcity. Members of the anti-canal movement and many concerned citizens made claims to the lake as an ecological and cultural treasure to be defended and protected, and as central to and a powerful symbol for national sovereignty. In the next section, I contextualize the most recent proposed canal project and the anti-canal movement in the broader context of environmental politics in Nicaragua and growing citizen discontent with Ortega's regime.

Árboles de vida, Sandinismo and environmental crisis

On July 19th 2013, just one month after the canal project was announced, Nicaraguan President Daniel Ortega and First Lady Rosario Murillo¹⁷ unveiled a series of huge yellow trees made of steel in the capital city of Managua to commemorate the 34th anniversary of the victory of the Sandinista Revolution. They presented the *árboles de vida* (trees of life), as they named them, as a gift from Rosario to the Nicaraguan people, and a public art project to embellish the city and bring joy to city residents.¹⁸ Subsequently appearing in a range of colors—sky and dark blue, deep yellow, bright red, white, green, and pink—the trees, each weighing ten tons and standing nearly 56 feet (17 meters) tall, came to line the *Avenida Bolivar* and the boardwalk of Lake Xolotlán (Lake Managua) which forms the capital's principal waterfront. As the *árboles de vida* slowly spread across the city, the government proudly announced the expansion of this “civil works” project.

¹⁷ Murillo ran and was elected Vice-President in the 2016 elections, which some see as a turning point in the duo becoming a “dictatorial dynasty,” just like the Somoza family that ruled Nicaragua for forty years from 1937-1979.

¹⁸ Days after the unveiling of the trees, Ortega and Murillo renamed *Avenida Bolivar*, the city's principal avenue (Bolívar is a reference to Latin American independence hero Simon Bolívar), *Avenida de Bolívar a Chávez* and installed a monument to former socialist leader of Venezuela Hugo Chávez in the middle of a rotunda near center city, also renamed, to *Rotunda Hugo Chávez*. The monument consists of a large sculpture of Chavez's head, with his classic red beret, surrounded by three yellow “trees of life.”



Figure 2. Árboles de vida lining Managua's malecón (boardwalk)



Figure 3. Árboles de vida with the Nicaraguan and Sandinista flags

By 2018, there were an estimated 150 trees across Managua, as well as a few at the entrances to the nearby cities of Granada and León—by day, their bright colors electrifying the urban landscape, and by night, lit up, illuminating Managua’s main avenues and lakeshore. The trees became a stamp of the Ortega-Murillo government and came to mark many of the city’s most important places and memorials, especially revolutionary monuments. One such site is atop Loma de Tiscapa, a hill overlooking the city and one of the city’s highest points, where there is a famous 59-foot statue of the silhouette of beloved nationalist hero Augusto C. Sandino from which Sandinismo gets its name. Erected by the FSLN right before leaving power in 1990, the statue marks the location of Somoza’s presidential palace (no longer there) where Sandino signed a peace treaty that ended his guerrilla war against the Liberals—the same place where he was assassinated by the National Guard after a dinner with Somoza in 1934. Visible from almost anywhere in Managua, Sandino with his signature sombrero rising above the city looking out toward the lake, from the place where Somoza’s presidential palace used to stand, is a significant and enduring symbol for the Sandinista Revolution. A bright yellow *árbol de vida* now stands alongside, and depending on the angle towers above, Sandino’s silhouette.

The *árboles de vida* were part of a broader aesthetic and political remaking of the Sandinista Party and urban space in cities and towns across Nicaragua that began during Ortega’s 2006 re-election campaign and intensified in the second term of his presidency.¹⁹ Electric pink billboards appeared across the country, featuring the faces of the president and vice-president with messages like, “*la revolución siga,*” the revolution continues; “*Viva la revolución!*”;

¹⁹ The famous *Plaza de la Revolución*, where hundreds of thousands of people gathered on July 19, 1979 to celebrate the victory of the Sandinista Revolution, was refashioned with bright pink billboards featuring Sandino, the original Sandinista and inspirational figure for Sandinismo, and Carlos Fonseca, the leader of the early Sandinistas, signed by “Daniel” and marked with his signature phrases proclaiming his continued commitment to the work of the revolution. Colorful tributes to the revolution together with the *Árboles de vida* were also part of an effort to promote tourism in Managua (see Fisher 2019).

“*Cristiana, socialista, solidaria!* (Christian, socialist, solidarity!),” and “*seguimos en victorias, gracias a Dios*” (we continue in victories, thanks to God). The signs often contained messages of triumph and victory in reference to the revolution and focused on Daniel and Rosario, celebrating their commitment to the Nicaraguan people and the country’s revolutionary ideals. They also emphasized religious messages about God and the party’s Christian values.²⁰ As these posters and billboards came to dot the Pan-American Highway and spread across Nicaraguan cities, their bright and pastel color scheme became a way of visually identifying Ortega/Murillo “public works” projects, as they remade parks and playgrounds, built and painted benches and boardwalks and decorated other public spaces with the same colors. The pastels of the Ortega-Murillo campaign increasingly replaced the traditional red and black of the FSLN.

In part through this campaign, Ortega and Murillo rebranded Sandinismo and the *Frente Sandinista* in their image. Public displays honoring the revolution, and more broadly the use of the country’s revolutionary past, became a central facet of Ortega and Murillo’s political discourse and presence. Reliance on his historical role in the revolution and claims to still being a revolutionary were central to Ortega’s first successful re-election campaign in 2006 and then again in 2010 (see Soto 2011). The *Árboles de vida* and the aesthetic remaking of Managua (and to a lesser extent the country) of which they were a part, marked a shift away from traditional signs of the *Frente Sandinista* and towards an Ortega-Murillo personality cult. Critics say, for example, that the campaign’s kitsch, new-age style reflects the personal taste of Rosario Murillo more than any national character or personality. This disjuncture is evident in the trees’ origin;

²⁰ Although liberation theology played a role in the Sandinista Revolution, in the 1980s Ortega had a hostile relationship with the national leaders of the Catholic Church. In part to guarantee his re-election in 2006, he made a pact with the Catholic Church, which explains his and the party’s sudden shift to (a proclaimed) piety.

the image and name of the trees are adapted from a 1909 work by Austrian modernist painter Gustav Klimt.²¹

The debut of the metal trees of life also marked an environmental turn in the FSLN's public discourse. The Ministry of the Environment and Natural Resources (*Ministerio del Ambiente y Recursos Naturales* or MARENA), an institution which has its origins in the revolution (originally IRENA), began producing and distributing widely promotional materials with slogans like, "*Amor a la madre tierra*," love of Mother Earth, and "*Amor a la naturaleza*," love of nature. MARENA posters and billboards with images of toucans, sloths, and jaguars in the deep forest, and slogans written in the same pastel fonts that had become characteristic of Ortega and Murillo's FSLN, popped up in government offices, schools, on city billboards, and street corners. MARENA and INAFOR, the National Forestry Institute, began sponsoring regular reforestation *jornadas* (working days) in which these government agencies donate and distribute hundreds of trees to youth and students and oversee the planting in celebratory day-long events with colorful shirts and signs reading, "Por amor a la Madre Tierra!" (For love of Mother Earth.) Jornadas were part of what the government announced as a National Crusade of Reforestation (*Cruzada Nacional de Reforestación*), the name alluding to the famous Literary Crusade (*Cruzada Nacional de Alfabetización*) of 1980, considered one of most successful projects and lasting impacts of the Sandinista Revolution. The *Árboles de vida*, or metal trees of life, in short, were a central strategy of Ortega's new Sandinismo (Villena 2018).²²

²¹ Echoing many Nicaraguan commentators, political scientist Hilary Francis (2012) in her discussion of the cultural production of post-2007 FSLN, critiques the "kitsch turn" in state-sponsored memory work in Nicaragua, which she argues indicates great distance between the current government and its original revolutionary roots.

²² Sociologist Sergio Villena analyzes shifts in the *Frente Sandinista* as part of the symbolic reinvention of the new Sandinismo, or "Sandinismo transfigured," a term he borrows from sociologist Edelberto Torres-Rivas (2007), who uses the term to describe what he calls the new Sandinismo of the right. Villena (2016, 2018) describes how the new aesthetics of Ortega's *Frente Sandinista*, including the changing of the historic colors of Sandinismo from red and black to a palette of pastels and the *Árboles de vida*, have gone hand in hand with the cooptation of the figure of nationalist rebel hero August Sandino. In the "new Sandinismo," Ortega has distorted and neutralized Sandino's

The “reforestation” of Managua with these metal trees of life attracted a great deal of criticism. Citizens on both sides of the political spectrum (for and against Ortega)—from taxicab drivers to school teachers to informal street vendors to businesspeople—criticized the trees as wasteful of both money and electricity, between their building, maintenance, lighting up at night, and protection by security guards (Calero 2015). Each tree costs between \$20,000 and \$25,000 dollars to install, and together, an estimated \$1 million per year in electricity. Building and installing metal trees struck many Nicaraguans as an inappropriate investment in an impoverished country where people’s basic needs are still not met.

Beyond criticisms of being wasteful, tacky, and out of place, the trees became a symbol of the Ortega regime’s environmental hypocrisy amid an environmental crisis. “Why don’t they plant *real* trees in Managua?” people asked. Critics urged that the government could and should be planting real trees if anything, especially because Nicaragua was in an environmental crisis (and then, with the drought, a water crisis) caused in large part by alarming rates of deforestation and expected to grow worse with climate change. Activists and journalists noted the irony that while the government invests resources in decorative metal trees, the state logging company ALBA-Forestal is simultaneously not just allowing but profiting from the massive, illegal deforestation of the country’s two largest forests and only biosphere reserves, Bosawás in the northeast, which is the largest forest in Latin America outside of the Amazon, and Indio Maíz along the southeastern border (Ruiz 2019). Both are the sites of large and increasingly visible civil society movements to protect both the forests and the indigenous groups who inhabit them.

image—turning it from “valiant and severe,” to a “Carnavalesque presence, stamped in pastel colors” and metal trees of life. Villena writes that Ortega attempting to replace the symbol of Sandino with a new symbol was a central strategy of Ortega’s new Sandinismo.

ALBA-Forestal is a logging enterprise started in 2009 with the stated aim of extracting fallen wood from Hurricane Felix, but the company's logging activities soon included the extraction of timber from other areas not harmed by the hurricane, going beyond the post-disaster mandate. ALBA-Forestal has been accused of illegal logging of Bosawás and other indigenous territories and protected areas on the Caribbean Coast. The accusations regarding the government's involvement in illegal logging are related to the bigger scandal over ALBA and Nicaragua's relationship to Venezuela. In 2007, shortly after being re-elected, Ortega joined ALBA, the *Alianza Bolivariana para los Pueblos de Nuestra América* or Bolivarian Alliance for the People of the Americas, an intergovernmental organization started by Hugo Chavez and Fidel Castro in 2004 to promote regional economic, social and political integration in Latin America and give Latin American countries more autonomy after decades of policies imposed by the U.S. and international institutions such as the World Bank. Leaders of the Bolivarian Alliance promoted the initiative as an anti-neoliberal, anti-imperial South-South cooperation model and an alternative to US-dominated economic development and policy based on an ideology of solidarity rather than capitalist free trade.

Upon joining ALBA, Nicaragua also joined Petrocaribe, an oil alliance led by Venezuela to provide oil and aid to member countries. To facilitate the deal, Ortega and Chávez created a joint venture, *Alba Petróleos de Nicaragua, S.A.* (Albanisa), a private oil company to import and sell Venezuelan petroleum products in Nicaragua. Because Albanisa is a private company, the state is not required to publicly disclose allocation of Albanisa's funds, but when it became clear that the government was using these funds for state expenses, citizens expressed concern about the lack of transparency of how the funds, which by 2016 amounted to over 3.5 billion dollars, were being used. In 2011, journalists at *Confidencial*, an opposition newspaper, began to uncover

a scandal when they found that Albanisa was being used to funnel millions of dollars to Ortega's allies for political favors and political support.

Venezuelan oil money came to be one of Nicaragua's top sources of aid, funding government anti-poverty programs and other development initiatives. It was this aid that enabled Ortega to consolidate his popular support especially among the rural majority and maintain support through clientelistic programs such as giving away zinc roofs, cows, and pigs to loyal supporters. With the escalating crisis in Venezuela, the aid stopped coming; the end of these funds broke down Ortega's clientelistic programs for the poor and led to a decline in support from the rural population, which some analysts say contributed to the 2018 revolt.

As the *Árboles de vida* came to cover more and more urban space in Managua, and concern about the canal intensified, environmental movements in the country grew and gained traction. Students, activists, concerned citizens and environmentalists denounced what they saw as Ortega's sham environmental agenda and the hypocrisy of the fake trees, citing his own administration's failure to enforce environmental protections and policies, its suspected involvement in illegal deforestation, and its protection of large agricultural industries at the expense of the country's natural resources. They pointed to the canal proposal, which would have a devastating environmental impact, as the most obvious contradiction to Ortega's government's claim to be protecting the environment. For critics then, the *Árboles de vida* exposed the regime's environmental discourse and proclaimed commitment to "*la madre tierra*" as false, revealing Sandinista environmentalism to be a public performance rather than actual practice. Citizens concerned about the government's environmental policy—or lack thereof—and critics of the government in general, turned the trees of life against the regime.

In the context of an increasingly tense political atmosphere, the trees also came to represent the growing authoritarianism of the Ortega-Murillo regime. People renamed the trees *arbo-latas* (*lata* means tin or can), highlighting the irony of the tree's material.²³ Branding the city with the trees was a way of marking and controlling public space, and critics noted the link between this control of urban space and Ortega's political consolidation and control and increasingly repressive tactics of governance.

Ortega had first come to power in 1979, when the Sandinistas declared victory and Ortega became the leader of the FSLN's *Junta Directiva*. He was then president from 1985 until 1990.²⁴ Environmentalism was a part of the Sandinista Revolution. IRENA, the Nicaraguan Institute for Natural Resources and Environment (*Instituto de Recursos Naturales y Ambiente*)²⁵ was created within weeks of the Sandinista victory in 1979, and its political mandate was to manage the natural resources of the nation for the benefit of the poor majority. Stewart (2000) argues that during the early- to mid-1980s, Nicaragua was a sort of "Mecca" for experimentation with ecological forms of production and socially responsible forms of environmental conservation and preservation (6), and that a critical environmental sensibility runs deeply through Sandinista thought.²⁶ Stewart (2000:108) writes:

Sandinista ideology contained a variety of environmental awarenesses, ranging from protest against the history of toxic contamination and neocolonial resource pillage during the Somoza regime through a concern for recovering and radicalizing rural cultures of

²³ In a 2013 op-ed titled "El árbol de la mentira," or the tree of lies, feminist and activist Sofia Montenegro described the "*arbo-latas*" as a symbol of an "abusive, incongruent, and totalitarian" regime, and an emblem of that regime's fear of falling from power (Montenegro 2013).

²⁴ There was much criticism of Ortega in the 80s, especially of his totalitarian tendencies, but often criticisms were viewed against the economic and other difficulties the new government faced with the Contra War and interference from the CIA.

²⁵ IRENA later became MARENA.

²⁶ Scholarly conversations regarding the role of nature or the environment in the Sandinista Revolution, which are relatively scarce, often point to some of the writings and speeches of Tomás Borge, and Omar Cabezas' (1986) famous book about his experience becoming a guerrilla in the mountains of Nicaragua, *La montaña es algo más que una inmensa estepa verde*, first published in Spanish in 1982. It was published in English under the title *Fire from the Mountain*. Unfortunately, much is lost in this translation.

protest to the celebration of the natural world as a source of artistic and spiritual inspiration.

He goes on to write that IRENA worked to inject the concepts of national sovereignty and popular participation, which were foundational to Sandinismo, with environmental content. In his 1985 poem “Ecology,” Ernesto Cardenal talks about the environmental harm caused by decades of *Somocismo* and writes of the Revolution: “Not only humans desired liberation. The entire ecology cried for it. The revolution is also for lakes, rivers, trees and animals” (Faber 1999). Another element of Nicaraguan revolutionary environmentalism was a critique of “*parquismo*” or a “*parquista*” definition of conservation, which referred to the kind of parks (protected areas) and environmentalism more broadly, promoted by the global North, which I discuss in the next chapter.

In 1990, Ortega lost the election to U.S.-backed candidate Violetta Chamorro, who ran with the opposition coalition the National Opposition Union (*Unión Nacional Opositora* or UNO²⁷), which many considered the end of the Sandinista Revolution and socialism in Nicaragua. It also signaled a new era of neoliberal democracy as Chamorro dramatically reduced state agencies which had been built up during the Revolution and promoted free trade, foreign investment, and privatization (see Babb 1996; Mendez 2005). As Chamorro’s administration significantly reduced state services, gains from the revolution in areas such as land access, education, and healthcare were reversed. The Nicaraguan economy was already devastated by the war and the U.S. embargo. Neoliberal reforms and austerity of the 1990s and early 2000s made the economic crisis worse for the poor majority as state programs were cut, people were left without access to basic health care and education, and unemployment soared. Poverty

²⁷ The UNO was made up of 14 different political parties ranging from the left to the right. Due to ideological differences, the group had difficulty agreeing on any political platform other than the promise to end the war.

deepened. Through the 1990s and 2000s, Ortega remained active in politics, running for president and losing in 1996 and 2001. During this time and leading up to his win in the 2006 elections, power and decision-making within the FSLN was increasingly concentrated into the hands of Ortega and his close allies.

In November 2006, Ortega was re-elected president winning just over 38% of the popular vote.²⁸ He had moved away from his image as Marxist revolutionary and adopted a more moderate image as a democratic socialist. Ortega and the FSLN's electoral win were seen as part of a wave of leftist leaders that came to power across Latin America starting in the late 1990s known as the "pink tide," which began with the election of Hugo Chavez in Venezuela in 1998.²⁹ He had campaigned in part on eliminating hunger and illiteracy and a commitment to improving the lives of the poor. Once elected, Ortega reinstated state programs for the poor majority, making gains in education and health care through a strong anti-poverty agenda, providing access to electricity in rural communities, and subsidizing services such as transportation.³⁰ Through these programs, he gained broad support among the rural and urban poor. A popular program called "*Plan Techo*," for example, provides zinc roofs for people in poor rural communities across the country. In another program "*Bono Productivo*," rural people receive cows, chickens, pigs, and seeds as part of a "Zero Hunger" program. But these benefits are

²⁸ It is widely known and criticized that Ortega won the election by making political pacts made with conservative leaders of the Catholic Church (an enemy during his revolutionary years) in the form of a total abortion ban (see Gooren 2010 on the "religious rebirth of Sandinismo" and Kampwirth 2008); the private business sector which he had formerly rebuked; and previous president Arnoldo Alemán. The latter, known in Nicaragua simply as "*el Pacto*," consolidated control of the three key state institutions—the *Contraloría General de la República*, Supreme Court Justice, and *Consejo Supremo Electoral*; restricted political representation; and made a reform to electoral law which lowered the necessary percentage to win the presidency from 45 to 40%, a condition Ortega insisted on, knowing he would need it to win. Ortega had won the election by carefully working to reorganize state institutions to leave the opposition divided (see i Puig 2010).

²⁹ Pink refers to these leaders coming to power through elections rather than revolution, which for decades had come to be considered the mode of social change and transformation for Latin American countries (Enriquez 2013).

³⁰ Ortega's first act as newly elected president was to reinstate public schooling, which had been abolished by Chamorro in 1990 (Henighan 2014:435).

distributed only to political supporters. His government is credited with reducing poverty rates and bringing economic growth to the country. But those same programs are criticized for clientelism.

While he has in some ways moved away from his former image of the 1980s, Ortega's continued reliance on the Sandinista Revolution and his role in it have been a pillar of his legitimacy to the Nicaraguan people. Since returning to power, Ortega has relied on discourses of the Sandinista revolution to maintain credibility and popularity.³¹ But critics say that Ortega's government has become increasingly authoritarian, repressive, and pro-business. Since 2007, Ortega has concentrated his political power by taking control of the supreme court and all branches of government and developed a stranglehold on the media.³² As Ortega consolidated power and his rule became increasingly authoritarian, there was growing concern among some sectors of civil society about his rule and its resemblance to the dictatorship that Ortega himself helped to depose. Nicaraguans who still identify with the politics of Sandinismo, but not with those of Ortega and the current FSLN began to distinguish between *Ortegismo* and *Sandinismo*; it is common to hear people say, "I am *Sandinista* but not *Ortegaista*." Since 2006, more and more people have left the FSLN, and opposition to Ortega and his rule of the party has grown.³³ But

³¹ Messages like "the revolution continues," permeate his public media campaigns, revolutionary symbols linking Ortega to the revolution adorn parks, city plazas and highways, and his public speeches often focus on the revolution's victory against US imperialism, which he vehemently condemns. Every year he hosts a huge televised rally in Managua's *Plaza de la Revolución* to celebrate the anniversary of the revolution, where thousands of his supporters show up wearing identical shirts given out by the government. Ortega has also branded the date of the revolution; two numbers separated by a slash mark many government publications and communications—for example, 41/19: 19 is the day in July of the Sandinista Revolution and the second number counts the number of years since the revolution. The examples go on and on.

³² He secured power in the countryside by creating *Consejos de Poder Ciudadana* (CPCs or Citizen Power Councils) in rural communities, a model borrowed from Cuba. Only party and Ortega loyalists with Sandinista member cards can find employment with the government, and there are accusations of election fraud. In 2014, the Sandinista-controlled National Assembly abolished term limits for presidents (a move borrowed from Chavez).

³³ Even before Ortega returned to the presidency, many of the original Sandinistas had left the party and publicly broke with Ortega and the FSLN including important political and literary figures such as Ernesto Cardenal, Sergio Ramirez, Giocanda Belli, and Jaime Wheelock. In 1995, a new political party, *Movimiento Renovador Sandinista* (MRS or Sandinista Renovation Movement) was founded by prominent members of the FSLN who broke with the

that opposition is also fragmented. And many people, especially those in rural areas, still support Ortega and continue to benefit from, and in some cases depend on, the FSLN's anti-poverty programs. Beyond his anti-poverty programs, some people's support for Ortega is rooted in his role in the Revolution and their experiences during the war. Old cleavages from the war are still present, especially in the rural areas that were most affected by the violence of that time. Communities that had been terrorized by Somoza's National Guard, mothers who had lost sons to the Contra, women and men who had spent their youth fighting to defend the Revolution, remain some of Ortega's staunchest supporters.

Ortega's shift to authoritarianism since 2006 calls into question his claims to a revolutionary past and present.³⁴ As Chute, a fisherman I spent afternoons with during my time in the small city of San Carlos, put it one day, "*Vivimos una dictadura de derecha disfrazada de izquierda.*" We live under a right-wing dictatorship masked as a leftist. Many Nicaraguans, including some who fought in the Sandinista Revolution, are disappointed and disillusioned.

These tensions had already been growing, but three key events made 2013 a turning point in Nicaragua: the announcement of the canal project, the unveiling of the *Árboles de vida*, and the beginning of a historic drought. Citizen responses to these events came to intersect with and bolster opposition to Ortega's regime, as opposition to the canal gathered more force, and as environmental movements gained more urgency and support amid the drought and perceived environmental and water crisis. Citizen mobilizations against the canal and environmental movements around water and Indio Maíz and Bosawás forests, became some of the strongest,

party due to disagreement over Ortega's leadership and the direction in which he was taking the party. MRS claims loyalty to Sandino and Sandinismo with a vision of social democracy and reject the authoritarian leadership of Ortega and the revolution's authoritarianism in the 1980s.

³⁴ In a new introduction to his memoir of the Sandinista Revolution, writer and former vice president Sergio Ramirez writes about the disconnect between words and actions in Ortega and his government, and how Ortega's political project is driven by ambition for personal power, "a power that no longer serves any transcendental project" (2012: xiii). For Ramirez and others, Ortega's new leadership is the "return of the caudillo" to Nicaraguan politics.

most vocal, and most organized critics of Ortega and Murillo's government and strengthened the opposition.

As objection to the canal grew and environmental movements became more visible and vocal, government repression of scientists, environmental organizations and activists increased.³⁵ Nicaragua's scientific community, many of them connected to the UCA in Managua, the country's best private university, became very vocal about its unified opposition to the project and Ortega's rule more broadly. The UCA came under fire for supporting these "renegade" scientists, and several members of the Academy started receiving threats, suggesting they stop discussing the canal project. Campesinos living along the canal route and who had been protesting the project, especially around Juigalpa where the resistance is concentrated, also faced government repression including harassment and intimidation. At some protests, police used rubber bullets, tear gas, and threatened bus drivers who were planning on bringing protestors from rural areas to Managua. Protestors were increasingly arrested and injured.

The government made it increasingly difficult for environmental and other civil society groups to operate. In 2018, months prior to the April protests, the government revoked the legal status of several civil society and environmental organizations, declining to renew their permits without explanation. One such organization was the Centro Nicaragüense de Derechos Humanos (CENIDH) or Nicaraguan Center for Human Rights³⁶, which had extensively documented and denounced state repression of anti-canal activists. (The police also raided the CENIDH offices.)

³⁵ The Nicaraguan government's attack on environmental activists and groups is part of a regional trend across Latin America: state repression of and violence against people working to protect water, land, forests, and fight against mining and logging in their communities. The murder of Berta Cáceres, an indigenous and environmental activist in Honduras in 2016, brought international media attention to this trend.

³⁶ Formed in 1990 by former Sandinista, lawyer and human rights activist Vilma Núñez, CENIDH has been an enemy of Ortega and Murillo since 1998, when Núñez accepted the case of Ortega's stepdaughter who accused him of rape and sexually abusing her as a child. Both Ortega and Murillo denied the allegations and the court ruled that the statute of limitations had run out.

Another was *Fundación del Río*, an influential environmental NGO (see chapter 4) whose members had been outspoken critics of the canal project and were working to expose the illegal deforestation and illegal settlement of Indio Maíz reserve as both a human rights violation and an environmental crime (Lopez 2018). Some foreign researchers and journalists were prohibited from entering the country. The state's increasing attempts to silence activists, scientists, environmentalists, national and foreign journalists and researchers, drew more media attention to the growing repressiveness of the Ortega regime and helped bring international attention to the political situation.

Research, information, and advocacy work around water, the lake, and any environmental issue became sensitive and subject to government censorship. Two of the country's most prominent water experts, for example, were fired from their jobs with state institutions for speaking out against the government. Ruth Herrera was director of ENACAL, the state water utility, from 2006 to 2013. While director, she produced a series of water studies and used the results to create comprehensive guidelines for how to improve water systems and preserve and sustainably manage the country's water resources. When she began to forcefully advocate that the results of these studies be implemented into public policies, the government removed her from the position.³⁷ Since being fired from ENACAL, Herrera has remained a vocal critic of government water management and fierce advocate for water. In 2016, she founded an organization, the Platform for Water and Life mentioned earlier, to spread information about and

³⁷ The history of how Herrera became the president of ENACAL relates to another instance of the government trying to disempower a water movement. In 1999, an anti-water privatization movement formed in response to an IMF proposal to privatize the country's water. In 2006, Ortega appointed Herrera, at that time director of the National Network in Defense of the Consumer and one of the leaders of the water anti-privatization movement, to head ENACAL, an appointment that many read as a political attempt to neutralize or co-opt the anti-water privatization movement. The movement became split, between those supported the appointment of Herrera, believing it would ensure the end of water privatization plans in Nicaragua, and those who worried her appointment was mere co-optation by Ortega and that plans to privatize would continue.

help solve the country's water crisis, which raised awareness about critical water issues and is openly against the canal. Like many environmental organizations, the platform ultimately became involved in the broader anti-government mobilizations.

In 2014, Salvador Montenegro, one of Central America's leading water scientists and Nicaragua's sole limnologist, published an article condemning the project titled, "We cannot resign ourselves to losing Lake Cocibolca." He had been advocating for the lake and warning of its declining health for decades, but his voice and expertise gained more visibility as national attention turned toward water issues and the lake. Shortly after the article was published, Montenegro was let go from his position as director of the *Centro de Investigación de Recursos Acuáticos* or Center for Water Resources Investigation (CIRA-UNAN), the public institution he founded in 1980, and another state environmental agency with roots in the Sandinista Revolution. He was voted out under suspicious circumstances; board members were bribed and intimidated to vote him out. Montenegro's ousting from the institution was widely attributed to him speaking out against the government's canal project and for protecting the lake. The forced resignation of Salvador Montenegro left the only water research institution in the country, CIRA-UNAN, politically compromised.

It was in this context that activists and opponents to the government turned the *Árboles de vida* into a symbol not only of Ortega and Murillo's environmental hypocrisy, but also of the regime's corruption, authoritarianism, and their perversion of Sandinismo. This competing symbolism became clear in the anti-government protests that erupted in Managua in April 2018.

From Indio Maíz to Political crisis

On April 3, 2018, a major forest fire began to burn in Indio Maíz Biosphere Reserve, a protected forest in the southeastern corner of the country along the border with Costa Rica on the

Atlantic Coast. Indio Maíz was originally designated a protected area in 1990 by Ortega under Si-A –Paz (*Sistema Internacionales de Áreas Protegidas para la Paz*, International System of Protected Areas for Peace), a transborder peace park created as part of postwar reconciliation efforts (see chapter 2). Roughly 70% of the reserve is located within indigenous Rama-Kriol territory. Following the 1987 law that granted autonomy to the indigenous peoples of the Atlantic Coast (see Hale 1994), a 2002 law reaffirmed the Rama-Kriol autonomous government's legal control over their land. In recent years, advocating against the illegal deforestation and settlement of Indio Maíz has become a pressing human rights and indigenous rights issue and a pillar of Nicaragua's environmental movement, especially with the prospect of the canal which would displace Indigenous people such as the Rama-Kriol from their lands. In the last two decades, cattle ranching in Nicaragua has increased substantially, in part due to growing demand for beef in the U.S., pushing the agricultural frontier further and further into forest areas. Due to climate change and declining conditions for agriculture in other parts of Nicaragua, especially the Western plains of León and Chinandega, smallholder farmers are migrating to places like Indio Maíz, which are perceived to have open land for the taking. Complicating this internal migration trend is a growing illegal land market, in which *testaferros* or front men or land traffickers, speculate on land prices and sell people fake land titles for plots of land that lie within the reserve, land that legally cannot be bought or sold. For years, the local Rama-Kriol government and Fundación del Río have been making public denouncements regarding the advance of the agricultural frontier into their territory and protected forest area. People living around Indio Maíz and activists in Managua blame Ortega's government for not taking action to protect the reserve and its inhabitants.

When news of the fire reached the capital a few days later, protests erupted as students, environmentalists, indigenous rights activists, and other citizens denounced the government's failure to take any action. It was widely speculated, and later confirmed, that the fire was started intentionally by a cattle rancher to clear a tract of land to extract wood and make more space for cattle pasture, but then spread and became uncontrollable. Because the government was slow to respond to the fire, many people suspected foul play and interpreted the event as confirmation of the government's quiet support of the ongoing invasion and destruction of Indio Maíz. People became even more suspicious about the government's involvement when it embarked on a disinformation campaign and blocked media access to the reserve through the military's declaration of the area as a security zone (Romero and Tórrez García 2018). The wildfire and resulting protests drew national (and international) attention to concerns about the government's failure to stop the agricultural invasion of protected forests and indigenous territory, and general mismanagement of natural resources and environmental hypocrisy.

University students led the first protest, in which hundreds of people gathered in front of the Universidad Centroamericana (UCA) against the government's inaction in the face of the fire in Indio Maíz. I went with members of the Platform for Water and Life, who had been in constant communication via WhatsApp since the news broke. Students were joined by environmental organizations and other concerned citizens. Many of the protestors' signs read: "Somos Indio Maíz" (We are Indio Maíz), which became a motto; it was scribbled on posters, written on shirts, and shouted by protestors.

As more and more people gathered, it became evident that a government-organized counter-protest was happening just across the street. A smaller group of people with identical white shirts stood around with signs, both of which identified them as part of the *Movimiento*

Ambientalista Guardabarranco (Environmental Movement Motmot³⁸), the Sandinista Party's environmental group, and the *Juventud Sandinista* (Sandinista Youth³⁹). Counter-protestors carried professionally made, government-sponsored posters with images of animals in the forest—one with an up-close jaguar face with a helicopter in the sky, to imply the firefighting work being done in the reserve—with the hash tag #EstamosEnIndioMaíz, We are in Indio Maíz, followed by the words “Amor a Nicaragua” (See Figure 4 on next page). For the government to proclaim “Estamos en Indio Maíz,” or we are *in* Indio Maíz, was significant, both in contrast to the student-led protests and their message of “SomosIndioMaíz,” or we are Indio Maíz, and because it was a way of countering one of the original protestors' main claims which was that the government was not physically present in the reserve to respond to the fire.

The same pattern of anti-government protest and pro-government counterprotest repeated the following day, beginning with an even larger student protest at the UCA. Following an opening rally with a few speakers, protestors left the UCA and began to march, blocking traffic as they moved toward a nearby square at the crossroads of two major roads, shouting in unison, “¡Que viva Nicaragua!” and “¡Señor, señora, no sea indiferente, Indio Maíz es la cara de la gente gente!” (Señor, señora—referring to Ortega and Murillo—do not be indifferent, Indio Maíz

³⁸ Motmot is the national bird of Nicaragua. They have a beautiful bright blue color and are distinct and easy to spot by their long feather tail.

³⁹ The Juventud Sandinista Julio 19 is a youth political organization that began in 1979 with the victory of the Sandinista Revolution; they helped coordinate the famous literacy brigades and coffee harvest brigades that helped bridge and strengthen solidarity between urban and rural youth. Strongly allied with—some say brainwashed by or pawns of—the Ortega administration, the group is an important component of Ortega's political base. It's eerie to see the photographs of Ortega standing in front of a large crowd of the Juventud Sandinista. Now the group is accused of making up the majority of the paramilitary groups now enacting violence in Nicaragua.



Figure 4. Poster of Indio Maíz counterprotestor in Managua

is the face of people). As protestors passed an *árbol de vida*, the chant changed to, “No al *chayopalo*!” The trees of life had become known as “*Chayopalos*”: *Chayo* is a derogatory nickname for Rosario Murillo; *palo* means stick or tree, and a couple of students spray painted “SOSIndioMaíz” onto the tree. Overnight, since the first protest, “SOS Indio Maíz” had quickly

become a rallying cry and a popular hashtag on social media. Finding that pro-government counter-protestors had taken their originally planned spot, student-led protestors continued marching past the counterprotest and settled further up on the road, far enough away from the government-sponsored event to continue with their rally.

The Sandinista Party's environmental group and the Sandinista Youth had, last minute, announced a "cultural festival" in the name of Indio Maíz. Attendees wore identical white shirts that said "*Unid@s en Victoria*," united in victory, in the signature party fonts and colors, with the signatures of Daniel and Rosario. Musical and dance performers played and danced on a small stage. Just as the day before, the curated event, with its professionally made posters and shirts, was a striking contrast to the chaotic, organic protest happening across the street. While student protests were politicizing the central government's absence and negligence in Indio Maíz, the "cultural festival" promoted the message that the government was physically and symbolically present in Indio Maíz, in solidarity with its human and non-human inhabitants, and taking concrete steps to put out the fire.

The dual protests created confusion. Anti-government critics interpreted the Sandinista counterprotests as the Ortega-Murillo administration's strategy of not only suppressing the student protests, which were in many ways anti-government protests, but also creating confusion around the original Indio Maíz protests, to tarnish and confuse media coverage of what was happening in Managua in response to the fire. It was an attempt to contradict protestor's messages that the government was negligent in the face of the fire and guilty in a deeper sense because they had failed to act on the illegal invasions in the forest that had been happening for years and that had created the conditions for the fire. Purposely confusing the media by sending counter protestors to anti-government protests at the same time and place became a regular

strategy of the regime in the weeks and months that followed, as the government tried to repudiate the public and international denunciations that multiplied as the public expression of oppression grew.⁴⁰

As the “cultural festival” continued, protestors who had started from the UCA resettled into their new spot, quieting their chants to pay attention to a few young student leaders who stood on the back of a truck and began to speak to the crowd. Within twenty minutes, a dozen large vans of riot police arrived at the peaceful protest and started charging at protestors and eventually using tear gas to disperse the crowd. In the chaos, I lost the people I had come with, but had made friends with a young student who was telling me about a feminist group on campus. When the police charged, she grabbed my arm and we ran together into a residential neighborhood off the main street. We said a strange goodbye, and, separated from everyone I had come with and without a cell phone, I headed back to where I was staying in a haze. As protests continued in the coming days and weeks, police tactics would become more violent.

The protests over Indio Maíz, and the government’s response to those protests, through the staging of counterprotests, and then the violent repression of protestors, was a clear sign of Ortega and Murillo’s authoritarianism and that their rule had become more powerful and more openly violent. In that sense, it set the stage for what was to come.

The atmosphere of protest was still lingering from the Indio Maíz fire when on April 18th, Ortega announced major reforms to the country’s social security program, the Instituto Nicaragüense de Seguridad Social (INSS). Imposed by decree, the reform increased worker and employer contributions and decreased future pensions for retirees. Protests erupted in Managua

⁴⁰ Government organized counterprotests had become a staple of the Ortega-Murillo government. As early as 2008, in the first years after Ortega’s re-election, the regime began to respond to protests by sending government supporters to form counter demonstrations to the streets as a type of informal repression, intended to impede and intimidate opposition protestors. This strategy was used, for example, in response to protests against the canal.

and in smaller cities across the country, as thousands of pensioners, workers and employers, joined by students and other citizens, filled the streets demanding a reversal of the social security decree. Police responded with force and violence, shooting rubber bullets and spraying tear gas, which in turn caused more people to protest and to do so more fervently.

Amid the protests, dozens of the trees of life, came toppling down when protestors knocked them over, setting fire to them or sawing them at the base and then yanking the tops over with metal chains. Videos circulated on social media and news outlets of the trees falling over with loud thuds followed by protestors applauding, jumping and roaring approval as they stormed onto the fallen trees, waving blue and white Nicaraguan flags in victory.⁴¹ The same metal tree that students had defaced was one of the trees that came tumbling down when protestors knocked it over. Just as the trees had become a symbol of Ortega and Murillo's unbridled power and environmental hypocrisy; protestors' destruction of the *Árboles de vida* became a symbol for the protest movement against the regime.

As protests escalated, the police began shooting and killing protestors. Paramilitary groups linked to the government also began to incite violence and kill protestors. The government's censoring of independent media impaired coverage of the protests and the state's violent response to them, but protestors and citizens used social media to document the violence and government repression of protestors. Videos circulated on social media of the paramilitary trucks, police violence, and snipers shooting at crowds. In response to the government's violent repression, protests only intensified, and what had started as issue-based mobilizations in defense

⁴¹ Journalists compared protestors' destruction of the metal trees to the famous toppling of the equestrian statue of Somoza in 1979 when the Sandinista Revolution triumphed. As many commentators noted, there were many parallels between the protests against Somoza in the 1970s and the 2018 protests against Ortega. Photographer Susan Meiselas, who captured several images that became classic images of the Sandinista Revolution, returned to Nicaragua in 2018 and captured very similar images. The comparison is uncanny/eerie.

of Indio Maíz and against the social security cuts, rapidly transformed into a broad-based uprising of tens of thousands of people calling for Ortega and Murillo to step down and for there to be early elections. The uprising threw the country into chaos. Within a week, cries for #SOSINDIOMAIZ became #SOSNICARAGUA. Within months, the death toll had risen to over 300.

As the violence and chaos in Nicaragua continued and got worse, Ortega and Murillo claimed that right-wing agitators supported by the U.S. government attempting a coup were responsible for the violence, not government-backed paramilitary groups as human rights groups, the international media and protestors themselves had asserted. Considering the long history of U.S. intervention in Latin America and Nicaragua in particular, this possibility merits attention. Journalists have made clear that U.S. thinktank the National Endowment for Democracy, an organization started by Reagan in the early 1980s that “promotes democracy and freedom abroad,” has invested more money in Nicaragua over the past years, in civil society and media organizations, and suggested that these U.S. funds helped lay the groundwork for the recent insurrection to take shape (Waddell 2008). *Confidencial*, an opposition news outlet, is one of the organizations partially funded by the National Endowment for Democracy.

In their accusation of a U.S.-backed coup, the Nicaraguan government painted the protestors as “right-wing coalitions,” and yet on the ground, those participating in the demonstrations were not merely those on the “right.” Some protestors expressed their frustration with the interpretation that the protests were staged and backed by the U.S., which they thought took away their autonomy as political actors. To what extent the U.S. may have been involved is yet unknown. But regardless, it is vital to acknowledge the organic reasons for the revolt, which must be understood in the context of the steady rise of Ortega’s authoritarianism over the past ten

years. What motivation the U.S. government would have to oust Ortega is unclear. Despite his anti-US, anti-imperialist, *viva-la-revolución* rhetoric, Ortega's administration has been very friendly to foreign investment, U.S. policies, and pro-business.

Leaving Nicaragua and introduction to the wider waterscape

As a result of the political chaos, I was evacuated from Nicaragua (by the embassy because I was on a Fulbright grant). I considered returning independently, but to do so felt unethical given the political crisis that was happening. Also, even prior to the crisis, research had felt strained in the politically tense and sensitive climate; this became more clear after I left and helped explain some of the difficulties I faced and frustrations I had felt conducting research in Nicaragua. So I reformulated my research project. Since I had originally planned to focus on the importance of Lake Cocibolca and water politics around the lake, I began to study transborder water issues along the border from Costa Rica, where my research in the protected wetland area and border community Papaturro (see chapter 2) had actually already started to lead me. This meant moving away from the lake, which is the center of the watershed and the heart of the regional waterscape in a historical and social sense, and examining water issues in the rivers and wetlands that make up the wider waterscape of which Lake Cocibolca is a part. In the chapters that follow, I explore other, lesser known water conflicts, and how people and communities on both sides of the border mobilize around and make claims on water and through water.

Chapter 2. Saving the Papaturro River

In 2015, the Río Papaturro, a transborder river that begins in Costa Rica and flows through a small stretch of Nicaraguan territory before emptying into Lake Cocibolca, dried up. Local residents of Papaturro, a small community located along the river and accessible only by boat from Nicaragua, were left stranded. Transportation and tourism came to a halt. The drying up of the river drew national media attention to this marginal, little-known border community whose only connection to the Nicaraguan nation-state is the river.

Papaturro sits in the middle of the narrow strip of land—much of it composed of wetlands—between Lake Cocibolca and the Costa Rican border, an area known to local residents as *la costa sur*, or the southern coast. Due in large part to its remote location, and because it is full of rivers and wetlands, the area has long been known to Nicaraguans and Costa Ricans as a distant frontier.¹ To people who do not live there, the area is known—if it is known at all—as “Los Guatuzos,” which is the name of the wildlife refuge encompassing the eastern half of *la costa sur*.² Guatuzos refers to the original indigenous inhabitants of the region, also called the Malekus, most of whom were killed, enslaved, or displaced by mestizo *huleros* or rubber tappers who came to the area from other parts of Nicaragua (and Costa Rica, although in much fewer numbers) beginning in the 1860s as a result of the global rubber boom (Edelman 1998; Fonesca 1999).³ The area, which has been designated Los Guatuzos Wildlife Refuge since 1990, is one of

¹ Or “*territorio distante*,” distant territory. See Arenas et. al 2002.

² Guatuzos is also the name of the vast plains that extend from the foothills of the volcanoes of northern Costa Rica to the southern coast of Lake Cocibolca, Llanuras de los Guatusos.

³ Today, most of the remaining Guatuzos or Malekus live on a reserve in northern Costa Rica. See Edelman 1998 for more on the displacement of the Guatuzos from this region.

Central America was one of the first regions that responded to growing global demand for rubber due to proximity to U.S. industries and the abundance of rubber trees throughout its forests. Papaturro and the Río San Juan region was a top region for wild rubber in Central America. The wild rubber boom ended in the early 20th century as low-cost plantation rubber from Asia supplanted wild rubber from the forest.

the most important wetland areas in Nicaragua⁴, and is part of a larger transborder wetland area that stretches across the central Nicaragua/Costa Rica border region. The Rio Papaturro, when it is flowing, is the most navigable of the thirteen rivers that run through the refuge, all of which begin in Costa Rica, and is an artery for the communities that inhabit *la costa sur*.

At the time the river dried up, Nicaragua and much of Central America were in a serious drought. Some people explained the drying up of the river as an effect of the drought and of climate change which is making droughts more severe. But a group of local residents insisted that the river drying up was a result not only of the drought but also of ongoing water-use patterns in the region; rice farmers across the border in Costa Rica were diverting water to their fields upstream. Meanwhile, across the border in Costa Rica, local residents claimed that the rice farmers' water diversion had also caused the death of a wetland lagoon, part of another wildlife refuge. Some of the national news coverage of the event presented the story as Tico (Costa Rican) farmers stealing water from a Nicaraguan nature reserve. This narrative, however, failed to mention that Tico communities were also affected by the farmers' water diversion and that residents on both sides of the border were working together to draw attention to and try and solve the problem.

Despite local divisions over Los Guatuzos wildlife refuge (a tension I discuss later on in this chapter), in their protests to restore the river, residents of *la costa sur* focused on the area's ecological importance as a wetlands area and wildlife refuge. People came together and drew on the protected area status, deploying discourses of environmental concern strategically to gain

Rubber in this new border region became a contentious issue between the central governments of Nicaragua and Costa Rica. See Edelman 1998. By the 1880s, when the rubber era in Central America was winding down and the market for rubber declined (this corresponded with the start of the Amazon rubber boom), the majority of the area's native inhabitants had been killed, enslaved, or had fled, and the *huleros*, finding the environment inhospitable, abandoned the region.

⁴ In 1997 it was recognized as a RAMSAR wetland site of international importance and is part of a UNESCO biosphere reserve.

greater visibility of the drying up of the river. As residents mobilized to save the river, they also sought to raise awareness of their marginal condition and contest the abandonment of *la costa sur*. The drying up of the Río Papaturro (and Las Camelias lagoon across the border, which I discuss in the next chapter) thus became a platform for local residents on both sides of the border to express longstanding frustrations and grievances about their sense of isolation, abandonment and being forgotten by the Nicaraguan and Costa Rican governments.

The river eventually recuperated, and residents' activism faded away, but their grievances remained. The drying up of the river revealed the precarity of *la costa sur*'s connection to the rest of Nicaragua. I arrived in Papaturro two years after the river had dried up, intending to research the drying up of the river as a window into water politics around Lake Cocibolca. Instead, being in Papaturro and investigating the river led me in the other direction, south to the border and to other lesser-known transborder waterways. The Río Papaturro and the wetland area of which it is a part became my entry point to the unusual history of this territory, the porousness of this border, and what I came to think about as the making and unmaking of the Nicaragua/Costa Rica border.

Writing about *la costa sur*, Arenas et. al (2002:43) observe that, "the border, which is usually non-existent in this forgotten land, becomes present in the moments when it is necessary to demarcate the national sovereignty of one or another state over the territory for political reasons." This chapter expands on this insight and examines how it is not only state agencies that participate in such demarcation in such moments, but also border residents themselves. Specifically, I look at how residents, who usually ignore the border, invoked it when the river dried up. More broadly, I consider how residents of *la costa sur* negotiate living on the border and in a wildlife refuge to highlight some of the key tensions and contradictions of the border (its

making and unmaking). Part one looks at how the border came to matter in this region: from the Sandinista guerrilla mobilization of the 1970s and Contra War of the 1980s, to 1990s postwar peace projects. I highlight how two postwar projects—a transborder peace park which remade Papaturro and *la costa sur* as a wildlife refuge, and a land-for-peace project which resettled refugees and ex-combatants in the area—came to clash, creating further conflict and confusion over land in a region already deeply disrupted by the war. In part two, I present residents' concerns and grievances regarding the wildlife refuge and show how the refuge is central to their sense of abandonment and marginalization and has become synonymous with state neglect. I consider how conservation in *la costa sur* has contributed to the instability of the border and messiness and fragmentation of the territory, rather than to tighter state control of the territory as most scholarly critiques of conservation would predict. Thus although the war and postwar conservation did cause this region to become more “bordered,” they also led to processes of displacement and resettlement, as well as local resentments toward government, that have contributed to the border region's continued flux and instability.

In part three, I look at the everyday “mobilities and enclosures” of the border (Cunningham and Heyman 2004) and examine how although the border (combined with the protected area and waterscape) limits and encloses local residents in some ways, residents also regularly ignore, cross, and/or take advantage of the border in ways that afford them opportunities and expand the scope of their daily lives. In the final section, I show how these tensions of the border play out in the local response to the river drying up. The river drying up became a moment of interruption in the usual crossborder flow of water, people, and things in this region. To restore these crossborder flows, residents called on their citizenship to invoke the border strategically in attempts to gain the attention and intervention of both states. Residents

reinscribed the political meaning of the border by contesting their marginal status as border residents and calling on national governments to intervene and remedy the water injustice. In other words, they appropriate official discourses of sovereignty and territoriality to articulate local concerns in moments of conflict (Reeves 2014). But at the same time, residents disrupted the border by drawing on their crossborder relations and fluid identities and organizing across the border to recuperate their shared water system. In this sense, residents' water activism reflected what Rocha (2009) and other Central American scholars have described of people in this border region identifying less along national(ist) lines and more through a sense of binationality in the borderlands. Thus not all residents ascribe the border meaning as a hard line of difference and division. In sum, this chapter brings to the fore the fluidity of the border and of border residents' relationships to it. Throughout, I draw attention to the role of the region's wetlands and rivers in the porousness of the border, as well as the fluidity and instability of the border region.

War, geopolitics, peace and conservation in the making of the border

After the rubber boom died down toward the end of 19th century, *la costa sur* remained very sparsely populated until the 1940s, when migrants started arriving from other parts of Nicaragua. This was part of a larger internal migration trend in Nicaragua in the 1940s and 1950s as the expansion of cotton, peanut, sesame and other export crops and an agro-export model of development dispossessed and displaced campesinos from their lands in the Pacific region, specifically the departments of Chinandega and León (see Gould 1990). Cacao became *la costa sur*'s first commercial agricultural export, and as that market expanded, more agriculturalists moved to Papaturro to grow cacao. A few large cacao plantations made up most of the area's settlement. There were also some smallholders growing cacao. During this time, cacao was shipped up the river and across the lake, either east to the Río San Juan headed for Atlantic ports,

or west towards the lakeside city of Granada. In the early 1970s, frosty pod rot disease (*monilia*) spread and wiped out the cacao crop, ending the era of cacao productivity. Farmers then began turning to other crops, mainly basic grains such as beans and corn.

Up until the 1970s, Papaturro was part of a regional network of riverine settlements connected through the lake, that was not strongly articulated with either central government but rather operated with a degree of autonomy. Locals knew there was a border but were not sure where it was. Many thought that the border extended up to the lake's shores, making Papaturro Costa Rican territory. In people's everyday lives, the location and even the existence of the border did not matter and the two sides of the border were indistinguishable; the Río Papaturro and the region's other waterways were central to this configuration. Today, people remember this regional history of river-based interconnectivity as a time of "*sin frontera*," or borderlessness. One woman recalled:

Before there was a hospital in Upala, the closest place to get a woman to the hospital to give birth was San Carlos of Nicaragua. So women would travel by boat up the Río Niño or Río Zapote until reaching Lake Cocibolca and from there cross the lake to San Carlos. Sometimes they made it, but in those slow old boats, a lot of times they did not make it and babies would be born right in the boat. We used to say these babies are not from Costa Rica or Nicaragua but from the lake.

Today, the border is more defined, and most babies are born in Upala because that is where the nearest hospital is, and for the benefit of Costa Rican citizenship. Costa Rica has a *jus soli* citizenship model, also known as birthright citizenship, in which citizenship is bestowed on any baby born on Costa Rican soil (see Goldale 2011 for more on the politics of birth and citizenship). But the sense of a local, third space of identity (or a dual identity) that does not adhere to the national and nationalist Nica/Tico division, persists.

Everyday life and the fluidity of local crossborder social relations began to change in the mid-1970s, when Papaturro and the surrounding borderlands and waters became a battle ground

in the fight between Sandinista guerrillas and Somoza's National Guard. Prior to this, according to locals, Papaturro had been a "forgotten territory," ignored by the Nicaraguan government. Then-president Somoza and members of his inner circle owned large tracts of land and farms in *la costa sur* and the Río San Juan region⁵, but there was no official government presence. After a major battle in San Carlos (the closest Nicaraguan city to Papaturro) in 1976⁶, which marked a turning point in the Sandinista struggle against Somoza, Somoza and his National Guard strengthened their military presence on the southern border. By the late 1970s, fighting had intensified and most inhabitants of Papaturro fled either to Costa Rica or San Carlos.

In 1979, the FSLN (*Frente Sandinista de Liberación Nacional* or Sandinista Front of National Liberation) successfully ousted Somoza and declared victory of the Sandinista Revolution. During a brief period of peace, some of the people who had left Papaturro returned. But soon after, in 1980-81, the CIA-funded Contra War began. Papaturro and *la costa sur* became part of "the southern front," as one faction of counter-revolutionaries, ARDE (*Alianza Revolucionaria Democrática*, or Democratic Revolutionary Alliance) led by Eden Pastora, formed along the southern border.⁷ Residents who had returned to Papaturro fled again, this time primarily to Costa Rica, as conditions across Nicaragua grew steadily worse. Papaturro and the rest of the Nicaragua/Costa Rica border remained a conflict zone until the CIA-backed Contra War against the Sandinista government came to an end in the late 1980s.

⁵ These landholdings were part of a larger land grab across the country by Anastasio Somoza and his cronies, concentrated in the barely populated and remote Río San Juan department. Somoza once famously remarked "Nicaragua es mi finca." Nicaragua is my farm.

⁶ The offense was organized by Sandinistas on the islands of Solentiname, close to Papaturro.

⁷ While Costa Rica had remained officially neutral during the Contra War, Luis Monge, who was president from 1982 to 1986, secretly allowed the CIA to run strategic outposts in northern Costa Rican territory to support and provide weapons to the Contra, in exchange for U.S. economic assistance. It was the discovery of a secret airstrip in northwestern Costa Rica and the election of Oscar Arias in 1986 (who took a strong stance against aiding the Contra and the CIA) that helped expose the Iran Contra Scandal and the illegality of what was happening in Nicaragua.

In 1987, the Esquipulas Peace Agreement or Central American Peace Accords were signed, marking the end of the Contra War and bringing to a close two decades of war and civil conflict in Nicaragua.⁸ In 1990, Daniel Ortega and the Sandinista Front, who had been in power since 1979, lost the election to opposition candidate Violetta Chamorro⁹, signaling what many considered the end of the Sandinista Revolution. Chamorro had campaigned on the promise of peace and to end the war. In the final days of his presidency, Ortega signed his last presidential decree, which created a series of protected areas in the Río San Juan department (Nicaragua's most southeastern department), among them Los Guatuzos Wildlife Refuge, a 440 square kilometer area of land and wetland south of Lake Cocibolca, which encompasses Papaturro.¹⁰ The conservation designation recognized *la costa sur* as an important and unique wetland area and home to rich biological diversity including.

The new protected areas were part of a postwar transborder peace park¹¹ initiative called SI – A – PAZ (*Sistema Internacional de Áreas Protegidas para la Paz*) or Yes – to – Peace, International System of Protected Areas for Peace (see Figure 5 on following page).¹² The goal

⁸ The Peace Agreements also addressed conflicts in El Salvador and Guatemala. Costa Rican president Oscar Arias received the Nobel Peace Prize for his leadership in negotiating and brokering the peace accords, bolstering Costa Rica's reputation as a culture and country of peace. Critics within Central America, including Costa Rica, say Arias did not deserve all the credit because he was building on the previous efforts of leaders across the region.

⁹ Chamorro became the first female head of state in the Americas. (Unfortunately she was not a feminist and under her leadership, feminist movements lost gains they had made during the Sandinista Revolution.) The assassination of her husband and famous journalist Pedro Chamorro by Somoza's National Guard was one of the events that sparked the start of the Sandinista Revolution, so there was a symbolic and sentimental appeal to her election.

¹⁰ Gobierno de Nicaragua. 1990. Decreto ejecutivo No. 527. Áreas protegidas del Sureste de Nicaragua. La gaceta, diario oficial # 78 del 17 de Abril de 1990. Managua, Nicaragua.

¹¹ Scholars and conservationists sometimes cite Waterton-Glacier International Peace Park established in 1932 as the origins of transboundary conservation, but the idea did not resurface in international conservation until in the 1980s, and the concept grew to prominence in the 1990s (Büscher 2013).

¹² SI – A – PAZ also includes Indio Maíz Reserve which I describe in chapter 1. SI – A – PAZ was just one of the transboundary conservation initiatives promoted by the Central American Commission of Environment and Development (CCAAD) during the postwar period (see Girot 1997), as transborder conservation became one strategy of renewed efforts towards Central American integration. The CCAAD was created in 1989 by the Contadora Group, a coalition of Latin American countries concerned about the region's civil wars, which identified improving environmental governance as an important regional goal. In 1991, the Central American Integration System, or SICA (*Sistema de Integración Centroamericana*) was formed. For more on the history and development of CCAD, see King et al. 2016.

of SI – A – PAZ was to contribute to the peace process and sustainable development in the border region through binational environmental conservation and cooperation between Nicaragua and Costa Rica, whose diplomatic relations had been strained by the war (Barquet 2015).¹³ Government officials and development actors promoted SI – A – PAZ as a sustainable development and conservation initiative. But it was also a strategic plan to demilitarize the border region, remove Contra fighters from their rural and riverside outposts, and rebrand the southern border, which had been a hotbed of armed conflict for nearly two decades (Girod and Nietschmann 1992), as a space of unique ecological value, cooperation, and peace.



Figure 5. The protected areas of SI - A – PAZ
Source: Barquet (2015)

¹³ The idea underlying transborder peace parks is that the environmental cooperation required for maintaining protected areas across borders contributes to peace and that the environment is a tool for or mediator of peace. This implies that the environment is politically neutral, an assumption that political ecologists have thoroughly debunked.

The idea of establishing protected areas on the Nicaragua/Costa Rica border emerged in the context of the boom in global environmentalism of the 1990s¹⁴, but it also emerged from local actors and processes, specifically from the work and vision of a few young revolutionaries and government functionaries working in the Río San Juan region in the 1980s. Rather than merely an international development intervention imposed from above, SI – A – PAZ also had local, revolutionary roots. By the time the war came to an end in the late 1980s, no one had farmed consistently in many parts of the border region for nearly two decades, and places like Papaturro had been depopulated. As José, one of SI – A – PAZ's founders put it, the war had reversed the agricultural frontier (see Pasos et. al 1994). Some of this displacement was the result of Sandinista agrarian reform and territorial planning. In 1982-3, in response to the increasing threat of the Contra in rural areas and as part of Sandinista agrarian reform, the FSLN established a series of *asentamientos*, or resettlements, in the Río San Juan department, to bring campesinos out of rural areas and concentrate them in towns and cities to protect them and make it harder for the Contra to gain traction in the countryside.¹⁵

With the population concentrated in certain areas (in Sandinista *asentamientos* around San Carlos), abandoned farmland across the region became overgrown, as wild tropical vegetation re-established itself. A few of the young FSLN revolutionaries and government functionaries working in the Río San Juan region were inspired by this ecological regeneration, and saw an opportunity to promote peace and development through conservation in a zone that

¹⁴ In the 1990s, conservation became a main focus of the development and international aid industries and funding for environmental projects became abundant. Sustainable development, a term popularized by the 1987 Brundtland Report (otherwise known as Our Common Future) published by the United Nations, became the new paradigm for international development work, emphasizing the need to balance growth with environmental conservation. Initial funding for SI – A – PAZ came from the governments of Sweden, Norway, and the Netherlands. The International Union for the Conservation of Nature provided technical support.

¹⁵ *Asentamientos* also offered basic services such as electricity, water, and medicine; gave people work; and became part of the Sandinista agricultural cooperative system, a central component of Sandinista agrarian reform (see Hammond 1989).

had been very hard hit by the war.¹⁶ The project's creators originally envisioned the project as a holistic model of conservation to meet the needs of farmers, who made up the majority of the region's inhabitants, and advance environmental sustainability. Like other Sandinistas, they were explicitly critical of northern environmentalism and wanted to promote a conservation model that fit with the realities of Nicaragua and the needs of the rural poor (Stewart 2001). According to Daniel, one of the project's founders, one of the biggest challenges in implementing this vision was the different ideas of conservation between Costa Rica and Nicaragua, a tension that remains to this day:

the Ticos were very *parquistas* while we (Nicas) had a different vision, of conservation as part of an integrated territorial management and a sociocultural and economic system. The vision of the Ticos is a conception of the north, but imposing that vision in the South is complicated (*es otra cosa*). We did not want to remove the campesinos from their lands. We see territories of conservation as part of a territorial system—functional territories that are part of a socioeconomic system. For us, conservation areas are not isolated islands, as they are for our Tico brothers who buy the lands and declare the protected areas national parks without human beings. This is not our vision of conservation. Our approach to Si - a - Paz and the tensions that arose reflected this difference. What we did was promote sustainable use of the land as part of a human-environmental system, not islands of conservation.

With the change of government in 1990, the new government had a different idea of how to do things. The Chamorro administration was, according to Daniel, “more on the side of the vision of the north,” of islands of conservation, which meant that the actual implementation of SI – A – PAZ shifted away from the original vision that had grown out of the revolutionary work being done in Río San Juan region. Even so, the landscapes devoid of people that had inspired the project were not natural, but born of war, government resettlement and agrarian reform, and displacement.¹⁷

¹⁶ The idea gained traction among FSLN government officials with the support of Jaime Incer, Nicaragua's most well-known conservationist, founder of the country's first national park, and environmental minister at the time.

¹⁷ For more discussion on the resignifying of a militarized space into one of exceptional ecological value and a symbol of peace, see Kim (2014, 2016) on the demilitarized zone or DMZ between North and South Korea.

In some places, such as Papaturro, the new protected areas overlapped and conflicted with postwar resettlement and government land distribution programs. In addition to marking the creation of Los Guatuzos Wildlife Refuge, 1990 was also the year that Nicaraguans who had fled Papaturro because of the war began to return (this was happening across Nicaragua). By this time, Papaturro and the surrounding area had been largely uninhabited by civilians for over a decade. With no one living there and in the absence of farming, wildlife and the forest had flourished; *la costa sur* was thus an example of the landscape transformation, or ecological regeneration, that had inspired SI – A – PAZ. Former residents of Papaturro returned to a dramatically changed landscape that almost seemed like a different place. People I spoke with described their memories of returning and having a hard time locating their homes and farms, and then barely recognizing them because they were totally overgrown, covered in green vegetation.

Nearly 1,000,000 people had fled Nicaragua during the war, and more than 50,000 had fought with either the Sandinistas or the Contra. Before leaving office, Ortega had granted bipartisan amnesty to facilitate reconciliation and help former combatants transition back to civilian life. Demobilization, as called for in the regional peace accords of 1987, was partially premised on land distribution (see Abu-Lughod 2000).¹⁸ Together with the United Nations High Commissioner of Refugees (UNHCR), Chamorro's government led refugee repatriation and ex-combatant resettlement initiatives to bring refugees home and reintegrate Contra and Sandinista ex-combatants into civilian society as they demobilized. Through a "Land for Peace" initiative, tens of thousands of ex-combatants were given small plots of land. A repatriation and refugee resettlement program distributed land parcels to returning Nicaraguans who had fled during the

¹⁸ While land was a stipulation of demobilization, the Contras had not been fighting for land. Land had been, however, central to the Sandinista political project as they sought to redistribute it to poor campesinos.

war. The slogan of repatriation efforts was, “*Hay tierra para cultivar*,” there is land to cultivate. Nicaraguan government and UNHCR officials in charge of resettlement targeted Papaturro and the surrounding area of the southern border as one of the program’s main resettlement zones.

Government repatriation and resettlement programs settled returning campesinos in and around Los Guatuzos Wildlife Refuge. I was unable to determine exactly how government resettlement mapped onto the different zones of the wildlife refuge. But according to Leonel, one of the people who helped create SI-A-PAZ, when they first did the “*ordenamiento territorial*” or land-use planning for the new protected areas, they designated various zones, including “life and development” areas, open to human activity with little regulation; “zones of sustainable use,” in which people are permitted to farm but with certain limitations; and buffer zones between inhabited areas and the “reserve or conservation zones,” to be kept wild. With demobilization and government land distribution and resettlement initiatives, the buffer zones of the protected areas quickly became agricultural fields, cattle pastures, and cacao farms.

Alongside formal resettlement programs, other newcomers came to Papaturro independently, some of them also ex-combatants. By the mid-1990s, the majority of inhabitants of *la costa sur* were new to the area. Formal and informal resettlement led to the creation of new communities, including two settled by former Contra fighters, and the population of *la costa sur*, which had always been sparse, began to grow. Jorge, one of the few people I met who was born in Papaturro, told me that most of the people who fled during the war never came back. He had fled to Costa Rica during the war and returned to Papaturro in 1990. I often found him rocking on a rocking chair in his open-air bar-restaurant which also served as the porch of his home. He sometimes wore a shirt commemorating an old friend from Papaturro who had fought with the Sandinistas and died in the war. “Some of us did return,” he said, “but more than that, new

people came... Today there are only a portion of the original families who have lived here through it all, always returning.” Residents old and new, coming back home to their country to restart their normal agricultural lives, were now living in a wildlife refuge.

In the postwar period of the 1990s, the border began to take on new significance in residents’ daily lives, due to the increased presence of state institutions (the environmental ministry and the military in Nicaragua), the wildlife refuge which now traced a portion of the border line, and increasing inequality between Costa Rica and Nicaragua. Inequality between the two countries had begun to grow sharply in the 1980s, and this became especially evident in the border region. While Nicaragua was ravaged by war and the southern border depopulated of civilians, Costa Rica continued to develop economically, and the government began to invest more in its northern border region as a way to protect its interests and its territory against the conflict in Nicaragua.¹⁹ The 1980s and 90s were thus a turning point, as the border began to divide and disarticulate this region that had for over a century operated as one fluid social and economic system (Rabella 1995).

But the division of the region was only partial. If one of the goals of the Nicaraguan government had been to mark and secure the border and incorporate the once peripheral territory into the nation, this effort remained fragmented and incomplete. Despite greater state presence, actual border enforcement remained minimal; and, for local residents, the border remained in practice largely open, fluid, and porous. Before, people had lived “*sin frontera*.” Now, there was a border and residents came to recognize roughly where it was on the landscape, but they knew it primarily by the ease and frequency with which they crossed it.

¹⁹ Costa Rica was also in an economic crisis during the 1980s, along with most of the rest of Latin America, the regional debt crisis otherwise known as the “Lost Decade.” But still in comparison to Nicaragua, quality of life was improving.

Moreover, displacement from the war, combined with the state's conflicting postwar interventions in the region—the peace park wildlife refuge on the one hand and refugee and ex-combatant resettlement on the other—led to confusion (and eventually conflicts) over land titles and land ownership, and ultimately to fragmentation of the territory. The messiness of land tenure in the area, however, can be traced back a decade earlier to the revolution. One of the first things the FSLN had done when they came to power in 1979 was confiscate the private landholdings of Somoza and his cronies²⁰, which included an estimated 80% of the cultivable land in the Río San Juan department (Rabella 1995). Large landholdings (*fincas*) in Papaturro were confiscated and made state land, although just like other smaller landholdings in the area, many of those estates had been abandoned anyway due to the war. The creation of Los Guatuzos Wildlife Refuge in 1990 made most of the area around Papaturro state land and set limits on the buying and selling of land within the reserve.

In the early 1990s, the Chamorro administration attempted to reverse and re-privatize Sandinista land seizures, with mixed success. In the case of Papaturro and *la costa sur*, some of the land that had been confiscated by the FSLN had been divided up into small plots and given to campesinos through resettlement programs. New residents who arrived in the 1990s on their own rather than through a resettlement program, whom some other residents referred to as *precaristas* or squatters, also claimed large areas of land without any formal claim or title. This turbulence—land abandonment, state seizures, creation of protected areas, re-privatization, and allocation to campesinos, and squatting—led to competing and overlapping claims to land and land disputes

²⁰ Nationally, lands confiscated by the FSLN became the base for Sandinista agrarian reform which entailed the creation of an agricultural cooperative system and land distribution to campesinos and was a hallmark of the revolution. See Deere and Marchetti 1985.

that persist today. The presence of so many wetlands across the region further complicate the matter, by making large areas unfarmable and impossible for smallholders to use, claim, or settle.

Wetlands had also, it turned out, complicated earlier state efforts to place boundary stones. As part of the Nicaraguan state's new presence on the southern border, in 1994, the military began a "*remojonización*," or check and adjustment of all the boundary markers (*mojones*) along the border, to re-establish Nicaraguan sovereignty over the territory. In one place on *la costa sur* just kilometers from Papaturro, military officials found that boundary markers were in the wrong place (according to the border division specified in the 1858 Cañas-Jerez Treaty). The misplaced *mojones* were located a few kilometers north of where they were supposed to be, meaning that an area of land everyone thought was Costa Rica actually belonged to Nicaragua. The explanation for how and why the border had been mismarked was that wetland conditions had made it impossible to put the boundary markers where they were supposed to be, "too much water and too many snakes," as one person put it. Nicaraguan officials moved the *mojones* south, re-establishing the correct boundary. (The story goes that they threw the old *mojones* in the lake). The Costa Rican government recognized the re-bordering as legitimate and acknowledged that the area thought to be Costa Rica was actually on Nicaraguan soil. The re-bordering split one community, once part of Costa Rica, in half, leaving 250 families in newly reclaimed Nicaraguan territory.

Partly in response to this incident, the following year on February 25, 1995, two men from the now divided community declared a new independent nation on the border between Nicaragua and Costa Rica, Airrecú.²¹ Airrecú means friendship in Maleku, the language of the indigenous group on whose ancestral land the region sits. The founders stated that they were sick

²¹ The new nation was located on 213 square kilometers between border markers (*mojones*) 12 and 14.

and tired of being the pawns in a century-long border dispute between Nicaragua and Costa Rica and were therefore declaring independence from both countries. A group of over 100 people declared themselves citizens of Airrecú, and its leaders applied to the United Nations for status as a nation, but the country was never officially recognized and the third nation on the border disappeared as quickly as it emerged.²² But the story demonstrates border residents' frustration with their liminal or marginal condition and a sense of a local identity and ties to the land and water that transcend the border, both of which are still evident today.

These postwar projects, which the Nicaraguan state intended at least in part to reclaim its southern borderlands, in a way prolonged the region's marginalization and alienated its residents. They did so first by further complicating local identities and relationships to place in a region that had already been deeply disrupted by the war, and secondly by creating tensions over land and resentment towards the protected area's restrictions on farming and hunting, all of which contributed to further fragmentation of the territory. This is what I turn to next.

Living in a wildlife refuge: conservation as care, control, and neglect

MARENA (*Ministerio del Ambiente y los Recursos Naturales*, or Ministry of the Environment and Natural Resources) established a regular presence in Papaturro in 1992. Initially, there was no building, just a sole *guardaparque* (park ranger) who rented a room in the community and whose job it was to patrol the area and enforce the regulations of the wildlife refuge. Within the refuge, hunting (of iguanas, caiman, turtles, and deer for example) is prohibited; cutting down trees is allowed only with a permit from MARENA; and agricultural activities are limited depending on the zone. For example, *quemadas* or swidden agriculture, a

²² This was in part because in July 1995, months after the nation had been proclaimed, Costa Rica's Institute of Agrarian Development (IDA) relocated the displaced people to Aguas Negras to the east. They eventually renamed their community Nueva Esperanza, or New Hope.

common practice, is not allowed. There are also restrictions on land ownership and the kinds of property titles residents can have.²³

In 1994, a Spanish NGO *Amigos de la Tierra*²⁴ arrived in Papaturro and built an ecological center, the *centro ecológico*, to support community development and conservation.²⁵ The center focused on wildlife management and community development projects within the refuge such as a turtle egg hatchery, an iguana nursery, and a shade grown cacao cooperative. They also promoted scientific research, receiving students and scientists to conduct tropical ecology research on topics such as migratory birds.²⁶ Also in 1994, Los Guatuzos Wildlife Refuge was named an internationally recognized Ramsar wetland of importance, and the area gained more attention among international environmentalist organizations.²⁷ In 1999, *Amigos de la Tierra* donated a piece of land to the Nicaraguan government to build a permanent MARENA control post which could house park rangers, making MARENA a fixture of the community.

Despite the presence of MARENA and limitations on hunting, agriculture, and owning land, the population grew and people continued to come, settle, farm and hunt. Since the return of civilians to *la costa sur* in the 1990s, the local population has been steadily growing, primarily in informal settlements where residents have no legal claim to the land. Of the twelve

²³ The wildlife refuge status prohibits the buying and selling of standard land titles. Within the wildlife refuge, one can only receive an agrarian title, similar to land ownership but with certain significant restrictions. One farmer explained to me the difference between a public deed or *escritura pública*, which is formal ownership recognized by the government, and an agrarian title or *título agrario*: People with only an agrarian title cannot have a mortgage on a property, take a loan out from the bank, or “advance economically,” as one resident phrased it.

²⁴ Amigos de la Tierra is affiliated with the international NGO Friends of the Earth, started in the U.S. in 1969.

²⁵ The arrival of Amigos de la Tierra and subsequently other NGOs in Papaturro was part of a broader trend in the 1990s in Nicaragua and across Latin America. As neoliberal policies drastically reduced state support and social services, there was an increase of NGOs that took on some of the functions of the state (see Gideon 1998).

²⁶ Together with MARENA, Amigos de la Tierra and the center’s few staff members created the first management plan for the reserve (Amigos de la Tierra España 1996).

²⁷ The Ramsar Convention on Wetlands of International Importance is an international treaty for the conservation and sustainable use of wetlands signed in 1971. See Matthews 1993 for more on the history and development of RAMSAR.

communities in the refuge, only four are legally recognized by the local mayor's office, which is a five hour boat ride away from Papaturro.²⁸ The unrecognized communities are considered *precarista*, which translates as precarious and means squatter.²⁹

The land-ownership and land-use restrictions outlined in the wildlife refuge's management plan³⁰ are at odds with the reality of postwar settlement of the region over the past three decades: a growing population of primarily smallholder farmers and the existence of entire communities. The disjuncture between the rules and zoning of the refuge and the actual situation on the ground is glaring. According to the zoning map in the most recent management plan, created in 2010, nearly 50% of the reserve is untouched, intact forest and wetland. "Totally untrue," said one resident as she showed me the map. "The map is false," she remarked, "but it is the official one."

The dock and welcome sign of the *centro ecológico* and the little dark green MARENA hut, which has a small screened-in porch with a hammock tied up, are the first things you see when you enter Papaturro by boat. (The Nicaraguan military post in the next thing you see, and all entering boats must stop there.) From this point of view, MARENA and the *centro* stand in a central place, and appear as prominent community institutions. Once on ground, however, I saw that they lie in a far corner of the community, and quickly learned of their controversial standing. Locals refer to the MARENA *guardaparque* simply as "the MARENA," rather than by name.³¹ From the MARENA hut, a narrow dirt path through banana trees leads to the ecological center's

²⁸ In 1995, when a team of MARENA officials and representatives from *Amigos de la Tierra* and the ecological center conducted a census to create the first management plan, there were only four officially recognized communities. This has not changed, despite the changing realities of settlement in the region over the past decades.

²⁹ Some longtime residents, who lived in the area before the war or moved in the early 1990s, as well as those concerned about protecting the refuge, see the illegal settlements as "land invasions" and a serious problem.

³⁰ The first management plan was created in 1995 and it was updated in 2010.

³¹ MARENA park rangers come from outside the community and stay for two years before being re-stationed elsewhere. They work for a month at a time before taking a half a week break and returning. *La costa sur's* single police officer works on a similar schedule.

small complex of wooden buildings, which includes the main office, communal area, and cabins around a central green space where there were often bright green tree frogs hiding under leaves. This complex forms a small part of the ecological center, which lies on eleven hectares of forest and wetland—one of the last remaining tracts of land and wetland within the refuge that is untouched by agriculture, as one of the guides pointed out. Winding through the property is a trail network where guides take tourists to observe the refuge's flora and fauna, including sloths, monkeys, various special bird species, and the occasional jaguar.

Since 2001, due in part to financial reasons and the changing interests of donors, the center shifted its focus from community development and scientific research toward eco-tourism and began to receive tourists instead of researchers. Although it seems they no longer fund community development programs or are very active in the community, *Amigos de la Tierra* maintains the center by paying the salaries of two local employees who work as administrators, tour guides and care takers. Oscar, the director of the center, lives in Managua and visits Papaturro once a month.

Most days, there are no visitors at the center and the trails and cabins are empty. Over the course of the time I was there, I met just a few tourists, as well as an orchid specialist from Managua who came for one week to rebuild the center's orchid collection; an *Amigos de la Tierra* headquarters representative from Spain participating in the annual migratory bird count; and two Nicaraguan college students from San Carlos doing their practicum in ecological tourism. Remnants of previous endeavors that have long since decayed dot the premises: a *caimanero* or caiman nursery with a few sad-looking, caged caimans; a disheveled butterfly garden with a ripped net and devoid of butterflies; and a seemingly abandoned turtle hatchery. Local critics of the ecological center (who include people for and against the refuge) cite these

discontinued projects and the fact that the center's grounds have not been well-maintained in recent years, as evidence that the center (and the refuge) is "*caído*," or has fallen.

As the population of *la costa sur* has grown, so has the tension between residents who support the refuge and those who oppose it. Those who care about the refuge, a group that includes employees of the ecological center and beneficiaries of eco-tourism, worry that the *centro* and MARENA are not doing their job, and that the wetlands the refuge is designated to protect are seriously threatened due to a rising population, newcomers who do not respect or even know the rules of the refuge, extensive cattle ranching within the reserve, deforestation and water contamination from agriculturalists across the border in Costa Rica, and the fact that the restrictions of the protected area are not actually enforced. "The wetlands act as water filters and purifiers," one resident stated, "but they can only handle so much," referring to the excessive levels of agrochemicals used by farmers on both sides of the border. For these residents, the river drying up deepened their concern about the degradation of the wetlands and refuge and intensified a sense of environmental crisis.

A few people suggested that if it were not for the wetlands, the refuge would already be gone. Wetlands, they explained, "*auto-conservan*" or conserve themselves. What they meant was that wetlands help conserve an area by simply being there. If the wetlands did not exist, certain areas would already be transformed, either "reclaimed" by agriculture or built over. By being too wet to build on—and in the absence of the resources that building over or "reclaiming" them would require—local wetlands prohibit clearing for agriculture, thus keeping the deepest parts of wetland areas intact. This resistance to development, in turn, keeps at least parts of the refuge wild. In this way, the wetlands in this part of the borderlands have served to limit the expansion

of the agricultural frontier.³² Residents also suggested that wetlands' ability to conserve themselves contributed to the border being open, which I discuss further below.

Many other local residents, most of whom make their living from agriculture, oppose the refuge and chafe at the restrictions on agriculture, logging, hunting, and land ownership and land-use. José, who grew up in Papaturro, expressed a sense of the community being invisible or erased, removed from their history with the land: "When they put the name *refugio*, it was as if it were a new place, like they were declaring a newfound territory. But we—some of us," he was careful to add, "had always lived here." Residents expressed frustration at what they saw as the sudden interest in the territory from a government that had never before bothered to attend to them (and still, for the most part, does not).

In recent years, a group of community leaders have been proposing a change of designation from *Refugio de Vida Silvestre* or wildlife refuge, to *Refugio de Vida y Desarrollo*, refuge of life and development, which would allow greater freedoms for residents, such as the ability to hunt and have standard property titles. Pablo, one of the leaders working for this change explained it this way, "People are against the reserve because they do not feel free. With the reserve and all the laws it brings, people cannot do what they want to do. And they do not want much! They only want to cut trees, clear land, plant, have their farm, sell the wood. They want to feel free to do these things."

And yet, alongside some people's complaints, was the impression that in some ways the refuge did not exist, or was defunct. Many residents' perceptions of MARENA—including those who were opposed to the refuge—suggested that enforcement of the wildlife refuge's regulations was fragmented, incomplete, and patchy. From what I gathered, it was only on occasion that

³² This is true in other places such as the extensive wetland region, almost permanently flooded, of the Caribbean coasts of Honduras, Nicaragua, and part of Costa Rica, see Jiménez 1999.

MARENA fined residents for infractions of the refuge rules. “This is not a refuge,” many people told me, or, “this is a refuge in name only.” Residents meant this both in the sense that Papaturro was a typical agricultural village and “had always been an agricultural area,” as many farmers emphasized, and in the sense that enforcement of the protected area is minimal and irregular. People on both sides of the divide, including those who complained about the conservation regulations, often complained that MARENA is “lazy” and does not do their work. Some reported that MARENA “does nothing.” Or, as one person phrased it, “When the MARENA is not sitting on his ass, he is hunting iguanas,” which of course is illegal within the reserve. Still today, thirty years after the designation of the wildlife refuge, a few of the residents I spoke with did not even recognize the name Los Guatuzos, which indicates the limits of the refuge’s influence and suggests that its presence does not restrict residents’ activities too much. So, despite the divisions between those for and against the refuge, what most residents seem to agree on is that the wildlife refuge is abandoned by the government and is not serving local people and communities, part of a larger pattern of “*olvido*,” the territory being forgotten. They cite the refuge’s state of disrepair, and the troubling state of the river, as evidence of the Nicaraguan government’s failure and its neglect of this marginal national territory.

The concepts of ‘*cuido*,’ or care, and control were key to local residents’ critiques of MARENA’s presence, and they came up frequently. Care is central to ideas about conservation. Indeed, for some people and by some definitions, care and conservation are synonymous. Scientists, environmentalists, development actors, and governments often frame conservation as a form of care: care and protection for the environment, certain areas of land or bodies of water, natural resources, landscapes or ecosystems, and even care for local people as, for example,

when they frame community-based conservation as a path to sustainable development.³³ Some definitions of conservation explicitly include the word care; Merriam Webster, for example, defines conservation as “a careful preservation and protection of something, *especially*: planned management of a natural resource to prevent exploitation, destruction, or neglect.”

In *la costa sur*, people spoke of care in relation to MARENA in two main ways. Those opposed to the refuge criticized MARENA as an *imposition of care*, distinct from local people’s forms of care for the environment and their community. In the words of one longtime resident, Harold:

In the 1990s when the NGOs came, I told them: we ourselves care for this. We always have. They did not even want us to have a cow. But we have always had cows and lived by that. Now that [the government] imposes care, instead there is destruction, now that the MARENA’s are those who care for nature. We care for nature because we have always cared for it.

Harold was one of several people who distinguished the imposition of “care” by MARENA and the government from the kinds of care that local people have taken of the land over time.

Community members in favor of the refuge and concerned about the wetlands it is supposed to protect complained about MARENA as an *absence of care*, in other words, neglect. They argued that MARENA should care for the river, the wetlands, the refuge, and yet does not.

Residents’ talk of MARENA’s work as control also had two different meanings, both negative. Those frustrated by the refuge, complained about MARENA’s “*control*” as a set of *restrictions*—on land ownership, hunting, agriculture, and logging. People worried about the refuge often spoke about MARENA’s *lack of control* meaning a lack of enforcement of regulations, a lack of protection. “*No hay control*,” there is no control, people often said.

³³ Another body of social science research critiques this aspect, looks at the commodification of nature and the neoliberalization of conservation (West 2005; Igoe and Brockington 2007; Büscher 2013; Büscher et. al 2014).

Historians, geographers and anthropologists have demonstrated that despite how it is often marketed, conservation is not just about care for the environment, but also often about control. A large body of work shows how protected areas and nature conservation have served as justification for states to gain control over certain territories, people and resources, for example through dispossession and displacement of local people (Jacoby 2014; Spence 1999), enclosure of communal lands and resources (Isla 2005), and even militarization and violence (Peluso 1993; Ybarra 2012; Lunstrum 2014; Devine 2014).³⁴ Scholarly critiques of conservation as a mechanism of state control are especially relevant in the context of borders: spaces so critical to defining and maintaining the state's territorial sovereignty. In this light, creating protected areas in frontier zones can be a way to secure the border under the guise of environmental conservation (Meierotto 2014). Preserving the nation's natural heritage can be a convenient discourse to justify intervening in the borderlands and protect national sovereignty.

Conservation is undoubtedly about control, as the work of these scholars has made clear. This was evident in Papaturro and *la costa sur*, as the wildlife refuge had led to greater state presence in the territory which impacted people's lives. And yet, as I have described, much of what I observed and what local residents expressed in relation to the wildlife refuge and conservation was patchiness and fragmentation. There was only one park ranger for the whole refuge; regulations were inconsistently enforced; the minimal infrastructure that existed to support the refuge was in decay. People in both camps (as well as people who were neutral or expressed no strong opinion on the refuge) equated the wildlife refuge with state neglect and abandonment. Regardless of their position on the refuge, people in Papaturro feel forgotten by

³⁴ Geographer Elizabeth Lunstrum (2014) calls this confluence between conservation and militarization "green militarization."

the Nicaraguan government, and for almost everyone I met, the wildlife refuge exemplified the government's neglect.³⁵

Many residents of *la costa sur* resent the Nicaraguan government because it has been present almost exclusively in the form of park rangers and military officers, but absent in terms of schools, potable water, electricity, and other basic services that one expects from the state. In Papaturro, there is a primary school and small clinic, but none of the communities in *la costa sur* have potable water or electricity, there is no high school, and the health clinic's services are very limited. Locals attribute their marginalization partly to their geographical position of living on the border, and they constantly compare their living conditions to those of neighbors across the border in Costa Rica. Just kilometers away in Costa Rica, citizens have clean running water, electricity, schools, and a hospital. Residents of Papaturro expressed frustration that basic services are so close and yet unavailable to them, and pointed to these disparities, so notable and palpable in their communities, to articulate their feelings of isolation and abandonment by the Nicaraguan government. The drying up of the Papaturro River intensified this sense of marginality and disconnection.

Conservation, then, rather than experienced strictly as control, has instead become for many a symbol of state abandonment and neglect. And, as I discuss further below, the wildlife refuge has become a tool for border residents to articulate and protest against their marginality.

³⁵ There is a widespread belief that the wildlife refuge is merely a way for the government to get money. Many people I spoke with suspected that the funding brought in for the refuge never reaches the local community. "When they declared this a reserve 20 years ago," reflected one local man, "the government said it would bring progress, but it has not. We have seen decline rather than growth. All it does is bring international donor money to Daniel's pocket and help the ecological center and owners of tourism businesses." Another resident told me that in the 1990s, "the rightwing government considered conservation good business to attract international investment in the form of aid money and NGOs. All these NGOs came to Nicaragua but for every \$100 that came in, \$90 went either to the government or to the salaries of NGO staff." This was a common suspicion across the border, too. I was unable to determine to what extent this impression of corruption was accurate.

Living on a border island and an open border

From San Carlos, Nicaragua, the journey to Papaturro entails a nearly five hour boat ride across Lake Cocibolca and then upriver through a wetland. Public passenger boats make the trip four days a week. (This is the only way to reach Papaturro from within Nicaragua.) Traveling there from the lake, the mouth of the Papaturro River is wide, but quickly narrows as its edges become covered in aquatic plants. Boat drivers slow down and use a long wooden branch to navigate through the vegetation and the small curves of the river's course.



Figure 6. Through the wetlands: heading upstream on the Río Papaturro

The first sign of human settlement is an old, wooden, and fading sign, “Los Guatuzos Wildlife Refuge, Biosphere Río San Juan,” that reminds you, “you are sharing the river with

cuajipales (caimans), so navigate slowly and carefully.” A few minutes downstream, the first dock appears, marked by another sign, “Welcome to Los Guatuzos Ecological Center.” Next door is the green MARENA hut, followed by another tiny wooden building, the Nicaraguan military post. Boats are required to stop in at the military post with their permission forms. From there, the boat continues to the main dock and center of the community, the place where boats and come and go, loading and unloading human and animal passengers and goods—fruits, grains, crates and crates of beer, soda, among other products. Some of these goods are to stock the two tiny stores in Papaturro (in people’s homes), while the majority are to become contraband, later smuggled across the border to Costa Rica to be sold at a higher price.

Arriving in Papaturro via boat gives the impression of a remote, isolated place, confined to the narrow strip of land between the lake and the Costa Rican border, surrounded by rivers and wetlands. This is the image that supports the wildlife refuge and eco-tourism. In part because they are physically surrounded by wetlands and rivers (with no bridges), several border residents expressed their sense of isolation and marginalization as living on an island: “*Somos una isla*,” we are an island, or “*La costa sur* is like an island.” Eduardo, from whom I rented a room and would occasionally catch in the evening to chat, put it this way, “This is a forgotten territory. We are surrounded by water on three sides and then Costa Rica where we do not have free movement. You cannot leave anytime you want because transportation is so limited. We might as well be an island in the lake.”

This local notion of *la costa sur* as an island captures how remote the area is and people’s sense of isolation from the rest of Nicaragua. But it is also misleading. In relation to the rest of Nicaragua and from the point of view of the river, *la costa sur* appears like a remote outpost. But once on land, and beyond the ecological center and the small area that forms the tourist circuit, it

becomes clear that *la costa sur* is not strictly isolated and enclosed, but rather forms part of a fluid and porous border region in which people have intimate ties to Costa Rica. The two roads that depart from the main boat dock—Papaturre's only two main roads apart from the river—lead south to Costa Rica, and they see far more traffic than the river. A few people stated that if it were not for its location on the border with Costa Rica, no one would live in Papaturre or the rest of *la costa sur*. As one person put it, "If it were not for the border, this place would be uninhabited." (This always came to mind on nights I sat outside and was swarmed by mosquitoes, which were a constant from dusk on and encouraged an early bedtime.) It is proximity to the border and to Costa Rica, and the relative openness of the border, that make living in Papaturre and *la costa sur* viable.

Border infrastructure is negligible. Along one of the roads, a few kilometers from the center of Papaturre, which is the area around the boat dock, there is one partially functioning migration post on the Nicaraguan side of the border that often seemed empty. It looks more like a schoolhouse than a migration office and operates only haphazardly—sometimes, for limited hours on weekdays—and is staffed by one man.³⁶ There is a wooden sign posted nearby welcoming those who pass to Los Guatuzos Wildlife Refuge, but no tourists—the group of people who would most likely recognize this welcome—enter this way. Legally, they cannot, since there is not a reciprocal migration post on the Costa Rican side which would permit their legal exit and re-entry to Costa Rica. Local people do pass there, but even when the single government official is working, he does not require them to show a passport, which no one has

³⁶ The migration control post was constructed just a few years ago as part of a multimillion dollar sustainable development project called *Ruta del Agua*, which was intended to promote water-based eco-tourism along Nicaragua's southern waterways and improve tourist infrastructure across the lake's coasts and islands. The idea of installing a border post near Papaturre was to attract more tourists to Papaturre from Costa Rica. Nicas in Papaturre say that Costa Rica never followed through with their part of the deal, to also build a migration post which would create the conditions for a legal exit and entry from one country to another.

anyway, or other permission. There are also two military posts: one on the river upon arrival in Papaturro, right next to the ecological center, and another located on a spot on the road right before the border roughly ten kilometers from the boat dock.

In many ways, the border is invisible: largely unmarked and relatively unpatrolled, with seemingly little oversight by the authorities on either side on a day-to-day basis. The closest official border crossing (one of only two along the entire border) lies 81 kilometers east in *Las Tablillas* (see chapter 4). The border is physically marked by an estimated 139 *mojones* or boundary markers spaced out across the 309 kilometers (192 miles). Up until 1994, there were only twenty *mojones*.³⁷ That year, the Nicaraguan Institute of Territorial Studies (INETER) and Costa Rican Geographical Institute decided to “densify” the border by adding auxiliary *mojones* (Vásquez 2009). Stone posts standing about three feet tall and measuring roughly one foot in diameter, the *mojones* have a circular metal plaque on top etched with a number and another piece of metal, this one rectangular, on the side that reads, “Nicaragua, Costa Rica,” side by side, separated by a thin line (see Figure 7 on next page). The few *mojones* I saw stood in the middle of farms and were worn and chipped. People talked about how some of them had been uprooted, moved, or removed all together by border residents, and how others had decayed in the extremely humid conditions. “Mojones go missing,” one man explained. “There used to be one near my house. Now there is just a hole.” He was not sure what had happened to it. As disregard for the *mojones* illustrates, the border does not in all places restrict border residents’ everyday movements, nor does it necessarily define their social relationships.

³⁷ The first 20 *mojones* were placed in 1897, following the Alexander Award, named after the U.S. engineer who was appointed by U.S. President Cleveland to oversee a commission, supported by both Nicaragua and Costa Rica, to fix and demarcate the boundary line.



Figure 7. A mojón or boundary stone.

There are multiple places to cross the border freely, and residents of *la costa sur* do so every day to work, shop, visit family or friends, haul drinking water, or sell beans, cattle, and other contraband. There was virtually no car traffic on the Nicaraguan side of the border (just motorcycles), but periodically I would hear several large trucks in the middle of the night, which

people said were loading goods to smuggle into Costa Rica. Residents call these places *puntos ciegos* or blind spots: places along roads or paths, through open fields or farms, or on rivers, where there is no government presence—no migration officials, police or military, and where it is easy to cross from one side of the border to the other. There are two main crossings that people use regularly (I used them too). Because the border is mostly unmarked, I only knew such sites were *punto ciegos* because locals told me they were. In this section of the Nicaragua/Costa Rica border, *puntos ciegos* characterize the border more so than any closure.

Most *puntos ciegos* are on dry land, but residents also alluded to river crossings.³⁸ People spoke about how difficult it is to access the many rivers and wetlands that make up the borderland topography and how they are hidden from view. In this way, rivers and wetlands make parts of the border very difficult to access, monitor, and patrol in any systematic way, leaving swaths of border territory open to illegal or illicit activities, from clandestine border crossings and everyday hunting of iguanas or caimans—prohibited in a wildlife refuge—to the smuggling of contraband and the movement of drugs. Wetlands thus, from the point of view of some border residents, impeded state efforts to control or enforce the border. The idea of waterways and wetlands complicating the stability and enforcement of the border line, and thus playing a role in the border remaining porous, was a recurring theme.

While the border itself may be invisible, its effects are not. Inequality between the two countries is clear to see. Access to Costa Rica through the *puntos ciegos* provides a lifeline for the families and households that inhabit *la costa sur*. In the absence of state assistance, people in Papaturro and the surrounding communities often rely on nearby Costa Rican state services, and local, transborder community cooperation and solidarity to meet their basic needs. Just 16

³⁸ Residents used to cross on the Río Papaturro, but it is no longer navigable upriver; today you cannot go very far past the main dock in a boat.

kilometers or about 10 miles from the border, is the small Costa Rican city of Upala and several communities and smaller towns with schools, a hospital, markets, electricity, running water, and jobs. Many residents of Papaturro and surrounding communities for example, get their water from “the other side,” bringing plastic jugs and barrels to fill and bring back. “No one denies water to anyone,” one woman told me. They also rely on Costa Rica for education. After finishing primary school in Papaturro, kids often go to high school across the border in Costa Rica. Many of these students are eligible to attend school in Costa Rica because they were born in Costa Rica and are thus Costa Rican citizens. Nicaraguan students who are not Costa Rican citizens are still able to attend school in Costa Rica.³⁹ (According to Costa Rican law, all children have the right to basic primary and secondary education, regardless of nationality or legal status.)

Some people live in Costa Rica but have farms in Nicaragua where land is cheaper, so they travel daily to Papaturro. Some residents of *la costa sur* have dual citizenship; most do not. Others have “neighbor permits,” which allow them to be in Costa Rica legally, but they still use the *puntos ciegos* to enter. From what I could gather, it seemed that the majority of people cross without any paperwork, permits or a passport, and the risk of being caught is very low.

People living in Costa Rica share their resources with neighbors in Nicaragua because of the density of social relations that connect them, including often ties of kinship. There is a sense of shared identity across the border which is rooted in historical ties, dating back to the time that there was in practice no border (and the rivers were highways). Border residents still recall this era when the region was even more fluidly interconnected. Many of the people who inhabit

³⁹ Elsewhere in Costa Rica, Nicaraguan students sometimes face discrimination. I did not hear of this in the schools across the border in Upala. Scholars have studied the experiences of Nicaraguans in Costa Rican schools. See for example Arguedas 2007, Locke and Ovando 2012.

northern Costa Rica originally came from Nicaragua, and some of them thus identify as both Tico and Nica. Upala, the main town across the border, was settled by Nicaraguans in the 1890s, as were most of the cities in northern Costa Rica. Upala's hymn, someone eagerly pointed out, references this Nicaraguan origin story. The war in the 1980s led to a surge in migration from Nicaragua to Costa Rica, and some of these refugees remained in Costa Rica and built lives there, which further deepened ties across the border. "*Estamos revueltos*," we are all mixed up, people would say of relationships across the border, or, "*somos lo mismo*," we are the same, "*tenemos fuertes enlaces culturales*," we have strong cultural ties. In reference to there being very little control along the border, one resident said, "There would be no point in controlling the border. People around here are all mixed up anyway. Ticos are Nicas and Nicas are Ticos." A few people suggested that even if central states tried to enforce the border more, it would not work.

Everyone I spoke to in *la costa sur* described friendly relations with Tico neighbors and local crossborder relations as good. The only thing that complicated this, people said, was tension at the national level between central governments. Tension and division higher up in the government starkly contrasted with the local situation in which Nicas and Ticos coexisted peacefully and often did not even fall neatly within the categories of Nica and Tico. Relations between central states became especially strained following the Isla Calero conflict in 2010 (see Introduction). Around that time, residents noticed more state presence, namely Nicaraguan military officers and Costa Rican border police agents, and greater efforts at border enforcement (although these efforts did not seem to last). Border residents spoke of how the conflict and tension between central governments of Nicaragua and Costa Rica negatively affected them. One example is Eduardo, a young resident of Papaturre who lives and runs a bar right on the border

line. (He receives customers primarily from Costa Rica in part because the beer and rum are cheaper on the Nicaraguan side.) The bar runs on a generator and has no running water. One afternoon we were sitting at one of the bar's outdoor tables, and he said, gesturing across the street, "Water and electricity are right there, so close, but we do not have either. If the two governments had a good relationship and cooperated more, we could hook up to their system and have drinking water and electricity, pay for it of course. Everything would be different." Eduardo and others expressed frustration with being caught in the middle of a conflict that has nothing to do with them or the local situation. Locally, people seemed to agree that there is more similarity than difference between residents of Papaturro and the rest of *la costa sur* and those living across the border in Costa Rica.

This unstable border dynamic, in which sometimes the border matters and other times it does not, came to the fore when the Papaturro River dried up. In the next section, I describe how border residents within Nicaragua and Costa Rica drew on their crossborder ties to collaborate to save the river and the lagoon and to articulate broader grievances regarding their marginality. Their organizing disrupted the border by highlighting the interconnectedness of both border communities and local bodies of water, which many consider shared and *sin frontera* (without border). At the same time, residents' mobilizations enacted the border by calling on both states to intervene and implement the law within their respective territories. This tension—of crossborder mobilizations over water both contesting and reinforcing the border—returns us to the quote from Arenas et. al (2002) I presented earlier in this chapter about this border, normally invisible, becoming present in moments when it is politically useful or necessary. It also illustrates Madeline Reeves' observation regarding "the eventfulness of borders—their capacity to appear, disappear, and de/materialize at particular moments" (2014: 237).

Saving the river, saving the wetlands

Even before it dried up, residents had been concerned about the state of the Río Papaturro. Water levels had been slowly declining for years, which people attributed mostly to the Costa Rican rice farmers' water diversion, but also to longer-term deforestation (mostly for cattle ranching) and climate change. Residents were also concerned about declining water quality and contamination from intensive agrochemical use across the border, and they described a massive annual fish die-off in the river. Every year when the rainy season starts in May, thousands of dead fish appear floating on the surface of the river. One resident, Gloria, whose backyard is the river, looked uneasy as she recalled the image, "Thousands and thousands of dead and dying fish floating down the river belly up, gasping for air above the water as if they want to or could breathe air. It is as if they are drowning." Gloria and others attributed the annual fish kill to pesticide runoff into streams and rivers from rice and pineapple farms in northern Costa Rica after the first heavy rains of the season.⁴⁰

When the Papaturro river dried up, a group of local people from both sides of the border began organizing to denounce the rice farmers and the Costa Rican for permitting the illegal water diversion. They petitioned the Costa Rican government to remedy the problem and stop the rice farmers, and the Nicaraguan government to take diplomatic and/or legal action against Costa Rica on their behalf. Members of the Committee of Protection, Care, Conservation, and Collaboration (CPCCC)⁴¹ led the efforts to restore the river. The CPCCC is a local community

⁴⁰ Reports of these annual fish kills date back to 1999 (see Cruz-Granja 1999) and confirm the presence of high amounts of certain pesticides and herbicides as the cause. A recent World Bank study of Lake Cocibolca cites the fish kills as evidence of declining water quality in the watershed, and shows that the majority of the nutrient and sediment load in the lake comes from agricultural activities on the Costa Rican side of the border via transborder rivers such as the Papaturro (Klytchnikova et. al 2013).

⁴¹ *Comité de Protección, Cuido, Conservación y Colaboración del Área Protegida Refugio de Vida Silvestre Los Guatuzos, Reserva de Biosfera del Sureste Rio San Juan*

environmental management committee, established by MARENA⁴² and composed of a small group of community leaders. (From what I gathered, the CPCCC does not meet regularly, but rather is used strategically for cases such as these, or when a development project comes to the community.) The CPCCC held a series of community meetings, drawing a large group of residents from *la costa sur* and then connecting with neighbors from across the border who were also dealing with the effects of the rice farmers' water diversion upstream (see chapter 3). The local crossborder dynamics of interconnectedness that I have described in this chapter played a large role in the mobilizations around the river and wetland lagoon, as residents from both sides of the border worked together to raise awareness about the issue, crossing back and forth for meetings and events to advocate for their shared waterways.

Community members filed formal public *denuncias* (denouncements) or complaints and used social media to publicize what was happening in their remote communities. In addition to the formal letters, they circulated an online petition directed to the national governments of Costa Rica and Nicaragua to "Protect the water of Las Camelias and Los Guatuzos," which focused on the protected areas and emphasized that water has no political borders. Hundreds of people signed the petition, including local residents from both sides of the border, tourists who had visited, and environmentalists from afar. Environmental concerns were at the center of the campaign to restore the river and lagoon, which focused less on the local communities affected than on the flora, fauna, and special wetland ecosystem of the area. One of the people who led the campaign, Juliana, showed me photographs and videos of dying, emaciated, and already-dead caimans along the shores of the dry riverbed, which residents had made the center of their social media campaign to make visible the direness of the situation and attract support for the cause. As

⁴² They exist in most protected areas in the country.

an everyday feature of the local waterscape, and one of the area's top fauna attractions, the caiman emerged as a symbol for the river and a wetland in peril.

One afternoon I sat in a rocking chair on the porch of Raúl, former leader of the CPCCC, who, in between swatting mosquitoes and greeting passersby, reflected on how dire things in the community had been when the river was dry. He showed me the petition that he and other community members had presented to the Nicaraguan government in May 2015, which urged Nicaraguan government officials to take action against Costa Rica so that the Costa Rican government would stop the water diversions. The petition included a letter; a map of the transborder water system that marked the location of the dams, channels, and reservoirs created by rice farmers (see Figure 8 below); several photographs of the damage; and signatures from fifty community members. Residents drew on the area's protected area status and environmental importance to strengthen their case and frame their grievances as doubly legitimate. The denouncement begins by listing the region's multiple conservation designations: "We the residents of Los Guatuzos Wildlife Refuge, Río San Juan Biosphere Reserve, internationally important wetland and RAMSAR site, Central American System of Protected Areas; and Mesoamerican Biological Corridor..." and later cites the Conventions on Biodiversity Conservation and Protection of Wild Areas of Central America. The letter goes on to denounce the Costa Rican government for "negligence and omission in the application of Costa Rican environmental, civil and penal legislation, as well as international environmental law," and specifically the Costa Rican environmental authorities for tolerating "environmental crimes committed in the border zone" by certain rice producers and cattle farmers/ranchers, that have been detrimental to the Nicaraguan population and Los Guatuzos Wildlife Refuge, but also to fellow border communities within Costa Rica.

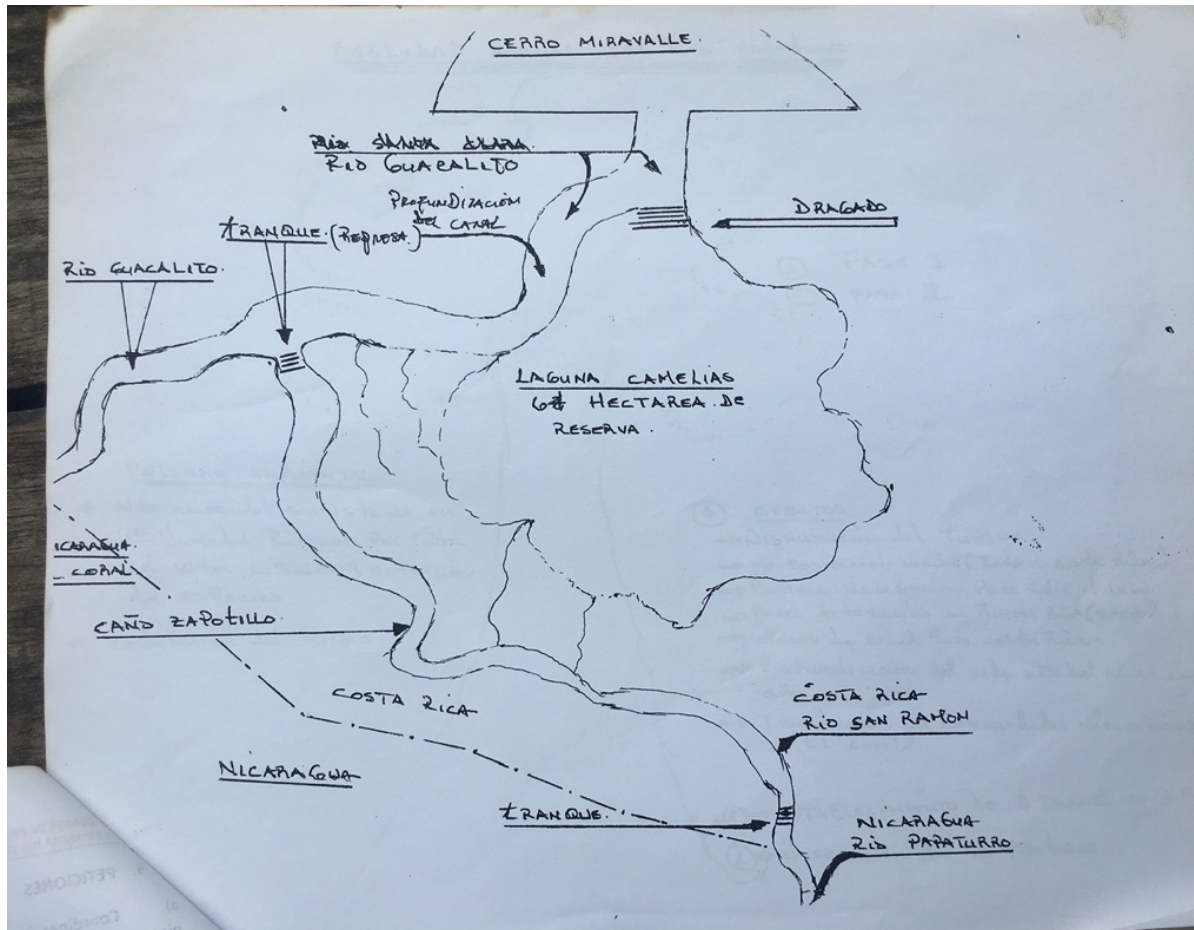


Figure 8. Map showing where rice farmers had diverted water

While the letter focuses on the violation of environmental law and the “environmental harm” caused by the farmers’ water diversions to local communities on both sides of the border, the final section of the letter states that the petition is a matter of “restitution of our human rights, dignity, and national sovereignty.” By invoking sovereignty, residents of *la costa sur* were drawing on the border and politicizing the limits of the national territory—despite the fact that their everyday lives hardly adhere to those limits, and that the crossborder mobilizations over the issue focused on the water system beyond the political boundary.⁴³ While they strategically drew

⁴³ They were also subtly appealing to an existing nationalist narrative within Nicaragua that Costa Rica is trying to steal Nicaraguan territory, which dates back to the annexation of Nicoya in 1824.

on the discourse of sovereignty (and in turn the long history of territorial disputes between the countries) to appeal to the Nicaraguan government, most residents of *la costa sur* have more affinity to Costa Rica than they do to Nicaragua. More than that, residents along both sides of the border seem more invested in their local communities and identities than they are in those of either national government.

In formal letters to the Nicaraguan government and their denouncements to the Costa Rican government (I heard people describe the letters to the Costa Rican government but I could not track them down.), residents invoked the border and national sovereignty to appeal to both governments to fix the problem. But the crossborder community mobilizations over the river and lagoon more broadly did not frame the issue as first and foremost a border conflict pitting different nations against one another. Instead, residents drew on their crossborder ties to collaborate and mobilize around the issue together, and framed the rice farmers' water diversion as an injustice perpetuated by powerful agricultural interests at the expense of local residents on both sides of the border. Their activism also highlighted the river and lagoon as part of a shared water system, citing transborder conservation designations to frame the waterways being harmed as local crossborder waters, rather than discrete parts of two different national domains. Thus the drying up of the river and border residents' response to it, rather than reinscribing the border as a line of division, revealed the border's porousness—environmentally, politically and socially.

Nothing ever came of the petitions. Raúl said that they worked on the case for over a year, but when neither government responded, he decided to retire. Others gradually lost interest. As the river's water levels slowly returned, residents were no longer in such a dire situation and figured that since they could no longer frame the issue as a crisis, their chances of garnering support were slim. By the time I arrived two years later, the river was once again flowing,

although, people say, with much lower water levels than it used to. Some residents were still worried about water diversion and contamination from farmers across the border, as well as the future of the river and refuge, but felt without recourse to do anything. The lagoon did not recuperate, and that is the subject of the next chapter.

Chapter 3. Bringing Las Camelias wetland lagoon back to life

After learning about the lagoon that had dried up across the border, I headed to Costa Rica. I had wanted to travel by water, but everyone told me the Río Papaturro is no longer navigable upstream. At a certain point it becomes too shallow and “*pantanoso*,” or swampy, to pass. So one afternoon in 2018, I hitched a ride on the back of the motorcycle of a young man who lives in Papaturro, has dual citizenship and makes the trip back and forth across the border often. We sped along the dirt road south out of Papaturro, which follows the Papaturro River for a short distance and then takes a different route to the border and into Costa Rica. Leaving town, the homesteads, many of which had black tarps out front with cacao beans drying, became more spread out as we passed pastures with roaming cows, fields of bean plants, and areas of forest and marsh. Eventually Costa Rica’s Miravalles and Rincón de la Vieja Volcanoes came into view, rising above the otherwise flat landscape. At some point during the journey, we crossed one of the well-trafficked *punto ciegos* and entered a huge expanse of rice fields.

Within twenty minutes, we arrived in another rural community, this one part of Costa Rica. Saying thanks and handing my driver a bill in *colones* (he preferred Costa Rican money), I hopped off. Felipe was already there, in his usual attire complete with *botas de hule*, the classic black rubber *campo* boots that come up to the knee, and a machete on his belt resting in a worn leather case. After a few minutes of greetings and small talk, Felipe pulled his machete out of its leather belt sheath and began whacking through a thicket of lush, bright greenery. His work revealed an old sign made of wood with the fading words, *Refugio Nacional de Vida Silvestre Las Camelias*. National Wildlife Refuge Las Camelias. “This is it, here we are,” he said. “This is the refuge.” The overgrown sign stood at the corner of what I now realized was an equally

overgrown road, which I would have missed had I been passing by alone. It was not clear what the sign was marking, and you would see it only if you knew to look for it. Once Pedro and Esteban arrived, we began to walk. I followed them on the old road through the high grass which led to an overgrown trail in the woods. Clearing brush and swatting at the ceaseless mosquitos, we walked for a few minutes until we reached a worn down, abandoned two-story house.



Figure 9. La casona

Sitting in the middle of a wooded area, surrounded by and covered with green vegetation, the abandoned house seemed to come out of nowhere.¹ The staircase connecting the two stories and many parts of the roof and flooring were missing, and pipes and tiles were ripped out. Vines crept into and around the building's wooden posts and remaining walls, the original light blue paint of which was chipping. A few meters away stood an old concrete outhouse, roofless and covered in moss, dark green and dark purple leaves swirling up around the sides. Felipe, Esteban and Pedro, agriculturalists who lived near Las Camelias and frequently moved back and forth between there and Nicaragua, slowed their steps as they approached and then stood back from the building, pausing to take in the scene. "I have not been here in ages," Esteban said. The three men started to carefully look around and investigate the condition of the building. Stepping onto the platform, we ducked our heads to avoid flying bats and thick spiderwebs.

We were at the remains of *la casona* (the big house), the former visitor's center of Las Camelias Wildlife Refuge, located in northern Costa Rica outside the small city of Upala, just kilometers from Papaturro, Nicaragua. The northern edges of the refuge extend to the border. *La casona* used to sit on the shores of a large wetland lagoon called Las Camelias, whose principal source of water was the Río Guacalito, a river which flows from Volcano Miravalles, part of northern Costa Rica's Guanacaste Cordillera volcanic mountain range, and used to empty into Lake Cocibolca.

Once there, Felipe, Esteban and Pedro began to explain how the refuge had been abandoned and how the lagoon, once the defining feature of the landscape, had disappeared. In 1994, the Costa Rican environmental ministry MINAE (*Ministerio de Ambiente y Energía*,

¹ In addition to its ramshackle state and seeming randomness, this was a striking sight also because two-story buildings are rare in the rural communities of this region.

Ministry of the Environment and Energy) had declared Laguna Las Camelias and the surrounding wetland area a national wildlife refuge, to protect 65 hectares of wetland habitat that was home to several unique plant species and a critical zone for migratory birds. In 1996, MINAE and SINAC (*Sistema Nacional de Áreas de Conservación*, National System of Conservation Areas), had built and inaugurated the visitor's center to promote eco-tourism and environmental education at the new refuge.²

Officially, the refuge still exists and is part of Costa Rica's system of protected areas, a system that since its inception in the 1970s has received high praise from around the world. One still finds Las Camelias Wildlife Refuge on the tourist map of the northern region produced by the office of tourism in San José. But the wetland lagoon that the refuge was created to protect no longer exists. There are different narratives of why and how the lagoon dried up. Some people living around Las Camelias claim that the death of the lagoon was caused by rice farmers diverting and re-routing water for irrigation (the same water diversions that led to the drying up of the Río Papaturro), and that the presence of buffalo in the refuge, which MINAE and SINAC say is a wetland restoration project, is a land invasion by a private landowner who is paying off local authorities to use the refuge and former lagoon as a buffalo pasture and farm. *La casona*, which I would revisit many times with different people, stood as a remnant of a previous land and waterscape and had become a site through which residents narrated and contested not just the loss of their local waterway but also their marginal border condition.

This chapter examines local narratives and mobilizations, confusions, and state silences around the death of Laguna Las Camelias and the abandonment of the wildlife refuge in this rural corner of the Costa Rica/Nicaragua borderlands. I look at border residents' refusal to accept

² The center was built with the help of international development funds from organizations such as *Amigos de la Tierra*, which also built the ecological center in Papaturro.

the death of the lagoon and how they mobilize the abandoned wildlife refuge and discourses of conservation and environmental protection in their efforts to reclaim the wetland and protest broader issues including inequality in land and water access and state corruption, neglect, and abandonment. I highlight their crossborder protests as another example of how the region's transborder rivers and wetlands, and border residents' response to the degradation of these waterways, blur the border as a line of separation and division, and call into question the idea that border protected areas help to enforce the border and increase state control. This chapter also shows how Costa Rica's famous and prestigious conservation model frays at the state's territorial margins. While many scholars have written about the creation of protected areas as a mechanism for the dispossession of local people, here I highlight how state abandonment of a protected area can be a form of dispossession. In the last part of the chapter, I draw on scholarship from political ecology and critical development studies to analyze how border residents derailed a United Nations Development Program (UNDP) climate change adaptation project meeting to redefine the region's "water problem" on their own terms: pointing to Las Camelias and other cases of illegal wetland drainage and degradation; unfettered deforestation by powerful landholders, especially cattle ranchers; and pineapple companies contaminating water.

Accounts of what had happened to Las Camelias, and between local government officials, MINAE, SINAC, the buffalo farmer, and community members were confusing and sometimes contradictory. There were stories of what went wrong with community organizing, including accusations that certain leaders had stolen money or colluded with government officials. People also mentioned that in addition to the buffalo farmer there were other *precaristas* or squatters in the refuge, smallholders growing beans, about whom people had mixed opinions. The narrative I present here focuses on the concerns of some members of the

community, but I do not wish to suggest that the community is a coherent, unified whole, nor do I want to paint the picture that there was no conflict between community members.

Many people with whom I spoke, including a scientist who had done research in the area, suggested that longer-term processes of deforestation and sedimentation upstream and within the watershed had contributed significantly to the drying up of the lagoon. State officials and environmental agencies, however, did not uniformly explain the situation in those terms. Many evaded the topic, and others seemed to genuinely not know. There was a lack of clear communication and transparency from state institutions and officials, which exacerbated the confusion over what happened. This lack of communication was a large part of why residents were frustrated. When community members organized and demanded answers, local government officials often deflected responsibility and sent them to another state office, a practice local people called “*pateando la bola*,” or kicking the ball, giving them the run-around. I experienced something similar in my search for information. It often seemed as though government officials were deliberately maintaining the confusion around Las Camelias. State officials’ lack of communication, deflection, and silence reinforced residents’ belief that the drying up of the lagoon and the abandonment of the refuge were the result of the corruption of state institutions and their disregard for the inhabitants of the rural borderlands (and that powerful agriculturalists paid off state officials to illegally divert water and occupy land that is supposed to be public).

I came to understand the seeming impossibility of “getting the story straight” as part of the story itself. It reflected how local people had experienced the events—through confusion and a lack of transparency from state institutions. Sociologist Linsey McGoey (2012) proposes the concept of “strategic unknowns” to highlight the many ways that ignorance can be harnessed as a resource, to deflect, obscure, or conceal knowledge. Her work is part of a body of research

within sociology, anthropology, history, and science studies on the production and reproduction of ignorance (Dilley 2010; Kirsch and Dilley 2015), anti-epistemology (Galison 2004), and nonknowledge (Mathews 2013), which shows how ignorance can serve or protect political interests just as knowledge often does. In this chapter, I draw on this work as I consider the production of confusion, or to put it in local people's terms, *pateando la bola*, as a purposeful tactic.

Ownership is another theme of this chapter. Who owns water, and who controls it on the ground? What kinds of rights and responsibilities does ownership entail? Costa Rican state officials and development actors routinely stated that “water belongs to the state.” They offered this statement as a reassurance, suggesting that state ownership entails protection and stewardship. Legally, water does belong to the state. But state and development actors' claims that water belongs to the state are at odds with the critical water issues facing rural border communities, for which state agencies do not take responsibility and seem to perpetuate confusion and silence. Instead, it is community members who take responsibility for local waterways and mobilize in ways that reflect a sense of communal ownership and stewardship in the face of what they see as the illegal transfer of public/state/community resources to private landowners and agriculturalists.

A disappeared lagoon

Felipe had worked on a dairy farm bordering Las Camelias for several decades. Back in the 1990s, his boss and a few other surrounding landowners donated land to SINAC to create the wildlife refuge. Originally from Nicaragua, Felipe has lived in Costa Rica for nearly half of his life, but he still regularly walks and bikes back and forth across the border to visit family and friends or occasionally to work a job. “We are basically natives here,” he told me. “We came

when the war in Nicaragua started in the late 1970s...In those days, none of these places had been declared wildlife refuges.” Despite a generally gentle demeanor, Felipe got agitated when he talked about Las Camelias. Working next to the lagoon every day for decades, he had closely observed the changes. His memories of the lagoon, the *espejo de agua* (mirror of water) were vivid, an expansive stretch of water animating the landscape and enriching the community.³

During our first meeting, we swayed on rocking chairs on a neighbor’s back porch, a welcome escape from the afternoon heat, as Felipe recalled how beautiful and full the lagoon used to be. He described Las Camelias as the center of the community—an important fishing spot, recreational area, meeting point, place to swim, boat destination from the nearby river, and at one point, a tourist attraction. He pulled out an old, torn piece of paper from his pocket and unfolded it as he said, “this is how it used to be.” The paper was an information sheet with a few paragraphs about the refuge’s significance and history and a photograph of the lagoon taken some twenty years earlier—water stretching out across the horizon, it looked like a lake. Felipe had held on to the sheet for years. Only later would I register the significance of this one worn piece of paper: concrete evidence of what had been, a past waterscape that some sought to cover up, muddle, ignore, or act as if it had never existed.

Felipe’s tone shifted from nostalgia to frustration as he began to explain what had happened to the lagoon. Sometime after 2000, water levels had slowly begun to decline. At first the change was subtle, but when large-scale rice farmers and cattle ranchers started diverting water from the Río Guacalito that feeds the lagoon, the lagoon quickly dried up. He drew me a map of the area’s waterways, x-ing the location of the dams that rice farmers had installed and

³ Felipe and others’ recollections of the former lagoon brought to mind Keith Basso’s (1996) work on the relationship between place, memory, and history, and how place and place-names are a way of telling and remembering history.

marking “disappeared lagoon” at the center. In 2007, SINAC and MINAE stopped staffing the visitor center with park rangers, effectively abandoning the refuge. With SINAC and MINAE gone, the visitor center fell into disuse, and farmers continued diverting the water. By 2010, the lagoon had almost completely dried up. Today the lagoon is a mere remnant of what it was, and, Felipe exclaimed, “the reserve is full of buffalo!”

A few weeks later, we were gathered at the old visitor’s center because Felipe had offered to show me around the former lagoon. After checking out *la casona*, we continued along the barely visible footpath through the woods, out to the open space where the lagoon used to be. Reaching a rusty barbed wire fence where the vegetation cleared, we ducked under and shimmied between the wires to cross. “This is the fencing for the buffalo,” Felipe said, gesturing to the wires. “These cables should not even be here because this is a refuge and conservation area.” We stepped out onto an open field, muddy in places and with occasional groups of trees. The landscape before us looked like any other field or open cattle pasture, a common landscape in the region. Just as I never would have seen the grown-over entrance on my own, without local guides, I never would have known this land used to be a lagoon. But Felipe, Esteban and Pedro’s memories and descriptions brought the former waterscape to life. I followed them as they showed me where the lagoon used to begin and end and described how it used to be: full of fishermen, boats, community members coming and going. “Some people made their living by selling fish from the lagoon,” Pedro recalled, “There were so many fish. *Guapote*, *gaspar*⁴, *sábalo real*, *mojarra*, *playera*.” Felipe pointed out a pair of old wooden posts where boats used to dock, now artefacts.

⁴ Gaspar, or tropical gar, scientific name *atractosteus tropicus*, is a prehistoric fish native to this region. Known as a “living fossil,” it has become a tourist attraction in a nearby wetland and wildlife refuge Caño Negro.

The lagoon had been part of the region's extensive water network made up of many rivers and Lake Cocibolca. The men recalled how the area's rivers used to be wide, deep, and well-trafficked, carrying boats, people, and crops such as cacao to and from Upala, San Carlos and Los Chiles. Boats used to enter the lagoon from the Río Guacalito and the Río San Ramón, often from Nicaragua. The Río San Ramón, a distributary of the Río Guacalito, is the same as the Río Papaturro discussed in the last chapter; but it changes names when it traverses the border. Today, the San Ramón is no longer navigable. When Esteban's father came to the region in the 1940s, all these rivers were navigable: "Rivers were the center of life around here. Everyone moved by the water. Farmers moved their cacao by the rivers out to the lake and down the Río San Juan." Their memories echoed what I heard all along the border about the region's river-based, transborder system of social and commercial exchange, in which water, people and goods flowed between what were legally distinct Nicaraguan and Costa Rican territories, but in practice locally, were seamless.⁵

The Sandinista Revolution and especially the Contra War interrupted this system. Boat traffic on the rivers significantly decreased in the 1970s and 80s due first to Sandinista fighting against Somoza and then the Contra War. "In the 1980s," Pedro said, "in the time of *la resistencia*,⁶ the contra trafficked these rivers. When there was an injury from a landmine or battle, they took the wounded person out by boat to Santa Clara where they could get an ambulance." In the 1990s, water levels of some of the region's rivers steadily began to decline until there was no longer enough water to navigate boats upriver to Las Camalias. Thus, it was

⁵ For more on the importance of water, rivers, wetlands, and the proximity of Lake Nicaragua to the history and settlement of Upala, see Solórzano 2018.

⁶ "La Resistencia" refers to the contra or counterrevolutionaries who fought against the Sandinistas. In my experience in Nicaragua, when someone says "resistencia" rather than just "Contra," it usually is an indication that they supported the cause.

not only the war, but also environmental degradation of waterways that contributed to a loss of transborder fluidity.

When we arrived at the headwaters of the Río San Ramon, I was surprised that it appeared more like a small creek than a mighty river. They introduced the river as “*el río de antes*,” or the river of before. “This river used to be navigable all the way to Papaturro but that was a long time ago,” Felipe said. “Where the rice farmers are diverting water is way upstream,” Esteban explained, gesturing south, “They left us without water.” They said that rice farmers’ re-routing of water had not only left the lagoon dry, but also caused flooding in other nearby border communities. Residents from those communities had thus also joined the fight to recuperate the lagoon. I was unable to speak with the rice farmers or get much information about them, except that they were large-scale producers for domestic consumption rather than for export.

When people living around Las Camelias first became aware of the dams and irrigation channels that rice producers had installed on the San Ramón and Guacalito Rivers, they began to organize and denounce the illegal water diversion from a protected area. They also began connecting with folks from Papaturro across the border, who were experiencing the effects of the changes downstream. After a few meetings, a group of people, including some from Papaturro, decided to go and try to remove the dams themselves, which were homemade with an estimated 100 sandbags. One afternoon, tools in hand, they made their way to the site ready to dismantle the dams and “reclaim the river and recover their lagoon.” But just as they started their work, they were stopped by the police, who said they were trespassing on private property and had to leave. After a brief attempt at making their case to the police about why this river should not be blocked, they reluctantly left. Residents from both sides of the border began to meet and write formal denouncements to the Costa Rican government for allowing illegal water diversion by

large-scale rice farmers in a protected area and a petition to the Nicaraguan government to take action against Costa Rica. The group denounced both governments' failure to enforce water-use laws and environmental regulations in protected areas. (These letters and denouncements overlapped with those described in the last chapter.)

On the Costa Rican side of the border, government officials from the Upala mayor's office and the environmental ministry seemed indifferent to local people's complaints and denouncements. Residents eventually became convinced that local officials from MINAE and the mayor's office were turning a blind eye to the water-use violations in exchange for under-the-table payments from big farmers. "He who has money, rules," as Esteban put it. I heard this phrase, and others like it such as "the law goes where the money is," many times in relation to Las Camelias. People would almost always make a money gesture with their fingers as they made such remarks. Despite local people's protests and denouncements, the dams remained in place and the water diversions continued. And the lagoon continued to deteriorate.

Border residents talked about the fate of the Las Camelias wetland lagoon as a death. But not everyone considered this death permanent. Many people refused to accept the death of the lagoon or the end of the refuge. In that refusal, resistance took root. Still hopeful that reversal was possible, people talked about their desires and plans to undo this death: to save or rescue the lagoon, "reclaim the reserve," and "bring the lagoon back to life," and they had tried to do so through various organized efforts at different points in time. Wetland reclamation usually refers to reclaiming wetlands from "nature," and making them productive in an economic sense. Residents turned this meaning on its head by talking about reclaiming their local wetland in the sense of restoring it. There had been at least three incarnations of an organization to save the lagoon led by different people, at least one of which grew out of a binational water management

community development project implemented in the early 2000s. When I arrived in 2018, the fight to bring the lagoon back to life was not very active. Those who had been organizing grew tired because MINAE, SINAC, and the mayor's office were not responding.

While local residents insisted that rice farmers' water diversion was the decisive factor in the lagoon's disappearance, a few spoke of a more general and longer-term cause: deforestation by the region's inhabitants, big landowners and small campesinos alike, over the past several decades. Pedro, a local farmer with whom I had first gone to *la casona*, while upset about the rice farmers' water diversions, acknowledged that indiscriminate deforestation in the region for years had also contributed to the lagoon's death. "Wetlands need forest to live," he said, "and we have deforested this place." In 2003, Francisco Solano, a geographer from the University of Costa Rica, conducted the first study documenting the problem of sedimentation and silting in the lagoon due to agricultural activities upstream in the Río Guacalito watershed (Solano 2002). In a later study, Solano measured and mapped the processes of sedimentation and identified areas in need of recuperation (Solano and Salas 2011). These findings suggest that long-term deforestation, primarily due to cattle ranching and other forms of agriculture, and subsequent gradual sedimentation played a major role in the lagoon's disappearance. In addition to agricultural activity, Solano notes the role of natural erosion of the mountains and volcanoes due to the geographical location of the wetlands on the alluvial plains to the north of the volcanic Cordillera Guanacaste.

It was clear that the lagoon had been in decline prior to the rice farmers' water diversion. So, it was not just the rice farmers. But the question of who is responsible remains fuzzy. The smallholders I spoke with insist that large cattle ranchers and pineapple and rice farmers who hold the most land in the region are the ones most responsible for the degradation of the region's

lands and waters.⁷ Other more general explanatory narratives circulate about the advance of the agricultural frontier and poor or unsustainable agricultural practices. In any case, by 2013, 86% of the lagoon's water area had been lost compared to 1992 (Barboza et. al 2016).

Wetland restoration or land invasion? The margins of Costa Rican conservation

In 2014, a herd of water buffalo appeared on the site where the lagoon had been. While officials presented the buffalo as an attempt to restore the wetland and recover the lagoon, some residents considered that narrative a cover story for state corruption. For them, it was a land invasion. They suspected that MINAE, SINAC and/or local government officials were taking under-the-table payments from the buffalo farmer to use the land, effectively privatizing the wildlife refuge. This gave residents a new, concrete issue around which to organize. Community members started a WhatsApp group called Save Las Camelias, which became an information-sharing and organizing platform for the cause, and created an organization called the Pro-recuperation of Las Camelias Wildlife Refuge Committee (*El comité pro-recuperación refugio vida silvestre Camelias*). The committee made formal denouncements to Costa Rica's Environmental Tribunal, the government office within MINAE responsible for receiving and adjudicating environmental denouncements and ensuring compliance with environmental and natural resource laws.

In 2014, the Tribunal condemned the presence of buffalo in the reserve and ordered that SINAC "stop the invasion" of Las Camelias Refuge and mark the boundaries of the conservation area within one month. The Tribunal also opened an administrative process against the SINAC

⁷ Some people traced the problem to Costa Rica's National Commission of Emergency, suggesting that farmers who received funds from the commission for emergency clean-up or restoration began diverting water from the Río Guacalito with the official objective of flood control and prevention, but with the real purpose of re-directing river water for commercial agricultural purposes, to irrigate rice fields and/or create a water source for cattle. Berta, who lives near the Río Guacalito, said, "Forget natural disasters. More like *emergencia de la plata* (emergency of money)."

and MINAE functionaries in charge of control and protection of the area, ordered the Directorate of Waters (MINAE), the state agency in charge of water resource management, to make a wetland recuperation plan, and the National Service of Groundwater, Irrigation and Drainage (*Servicio Nacional de Aguas Subterráneas, Riego y Avenamiento*, or SENARA) to conduct a hydro-geological study to determine the site's hydrological fragility. Then president of the Environmental Tribunal, José Lino Chávez, declared Las Camelias “a monument to institutional incompetence,” stating, “It is an absolute institutional irresponsibility what has happened in this refuge, this patrimony of the state, and it is necessary that the state, in this case MINAE, retakes possession of Las Camelias.” The tribunal brought the case of “serious environmental damage and institutional inefficiency” to the Public Ministry and a comprehensive investigation was supposed to have followed (Alvarado 2014). I was unable to find any evidence that such an investigation occurred.

Locally in Las Camelias, SINAC and MINAE officials presented the introduction of water buffalo as part of a wetland rehabilitation pilot program. There is an official diagnostic study of the project, but it is dated 2015, and the buffalo arrived in 2014, so its origins are suspect. Most of the SINAC and MINAE officials with whom I was able to talk were hesitant to say much, but the biologist they contracted to design and lead the project was happy to talk about it and did so openly. Gerardo explained that water buffalo are like “a biological machine” for the cleaning and management of vegetation in wetlands and that controlled pasture of water buffalo can be used to help restore wetlands (Barboza 2005, 2011). Having led successful wetland restoration initiatives with buffalo in other parts of Costa Rica, most notably Palo Verde National Park, he came to Las Camelias optimistic. He explained that the project was a five-year study and joint effort between MINAE, SINAC and an *hacienda* neighboring the refuge. The

diagnostic study cites poor land management upstream within the sub-watershed of the Río Guacalito and the lack of “active management” as the problem (Barboza et. al 2016). Gerardo and his team planned to evaluate rehabilitation via monthly monitoring of ecological indicators, including percentage of controlled vegetation and desired changes in the vegetation; area of water recuperated; and presence and abundance of certain bird species.

When I asked Gerardo how Las Camelias dried up in the first place and whether he was aware of the controversy surrounding the buffalo, he said it was a “thick conflict” and that he had simply tried to stay out of. To him, Las Camelias was a job and an opportunity to share his expertise. The restoration project was framed as a MINAE- and SINAC-led initiative, but Gerardo also told me that he was hired by the buffalo farmer, who called him for help because “there was a conflict.” According to Gerardo, despite promising preliminary results, the project was short-lived, lasting for only one year rather than the planned five. He said that after a year, his project counterparts, the buffalo farmer and SINAC, stopped contacting him and so he stopped participating.

Locals knew that the buffalo had been justified as part of a government-led research and restoration initiative but were unclear on the details and were skeptical that it was ever a genuine effort at restoration. What they were clear about, however, was MINAE and municipal officials’ persistent evasion and creation of confusion surrounding the details of what happened, which residents considered a tactic of the local government and other state environmental agencies to muddle the events and diffuse responsibility. They were also sure that the buffalo were “*una mentira*”—a lie.

It seemed there was never clear communication between state agencies and local communities regarding any aspect of the project, from its unveiling to its early termination. Most

of the MINAE and SINAC representatives I was able to interview had very limited knowledge or memory of the details of what had happened to Las Camelias. I found no official account from MINAE or SINAC and was unable to talk with anyone from the local MINAE office. The few SINAC representatives who spoke to me about the matter did so in vague and unclear terms. My search for official records, publications and documents on the wildlife refuge was largely fruitless; the only documents I could get a hold of were the diagnostic study for the buffalo project and those from locals who organized to recuperate the lagoon and refuge. These included meeting notes, photocopies of photographs of rice farmers' re-engineering of the river, hand-drawn maps of the water system and what happened where, and letters they had written to local government authorities. Las Camelias Wildlife Refuge is still listed on the official SINAC website as a protected area, and marked on the regional tourism map, but aside from this, I found no official reference to the refuge. Conflicting stories and no official record made it hard to piece together and understand what happened. It seemed that once the lagoon disappeared, the history of the area having been a state protected area was partially erased, by at least some state officials.

One morning, I traveled two hours east to the nearest national park, Arenal Volcano National Park⁸, to talk to Cynthia, a SINAC employee who used to work in Las Camelias. She was the only state official who had worked at Las Camelias with whom I was able to connect and who was also willing to speak with me. At the end of a long, winding rural road (on which I had to stop for a sloth crossing), I arrived at the booth where visitors enter the park and the attendant directed me to the ranger station where Cynthia's office was. On the way there, I admired the perfectly cone-shaped volcano rising in the background set against the bright blue sky and thick green forest, recognizing the scene as one of Costa Rica's iconic eco-tourism images. The park,

⁸ Located in Arenal Huetar Norte, the same conservation area as Las Camelias.

which I spent the afternoon touring after our meeting, is one of the most-visited destinations in the country and clearly well cared for. Trails are well maintained, park rangers are present night and day, signs are intact and freshly painted, and there is a brand-new ranger station. Near the foot of the volcano is the small city of La Fortuna, whose economy depends on tourism from the park and other local attractions, including waterfall hikes and natural hot springs. Luxury hotels and backpacker hostels line the streets, which bustle with tourists year-round.

I found Cynthia in her office. She explained that currently she works in “control and protection” of the national park and oversees granting research permits for the Huetar-Norte conservation area, a responsibility she took on voluntarily because SINAC does not have enough resources to hire someone full-time.⁹ In 2015, Cynthia had conducted a diagnostic study of land-use change and land tenure in and around Las Camelias Wildlife Refuge for her bachelors thesis research in natural resource management and protection and as part of her work with SINAC. Part of the reason for her study was the degradation of the wetland and disappearance of the lagoon, which she attributed to agricultural activities in the area, especially extensive cattle ranching. The first step of her study was figuring out the limits of the refuge, which had never been marked before. “The first problem was that no one knew where the limits of the refuge were,” she said. With the backing of SINAC and the help of a few local community members, Cynthia formed a project to define the boundary markers, “to map the digital archive onto the land, to the topography.” Using GIS software, together with some lost documents she recovered from the MINAE office, she was able to determine the original boundaries of the refuge.

⁹ Lack of sufficient funding was a theme among all the SINAC and MINAE employees I talked to outside of San José. Despite many citizens’ perception that they steal money, MINAE/SINAC employees working outside the central headquarters described not having enough funds to do what they need to do.

Once they had located and physically marked the protected area's limits, Cynthia analyzed land-use patterns in the area bordering the refuge, finding mostly small plots of subsistence crops such as rice, beans, corn, fruit trees, and a few large cattle ranchers and rice producers. She was then able to identify the places where properties or farms were encroaching on the refuge. When I asked about the buffalo, Cynthia said that the buffalo farmer was one of the agricultural operations that her study found encroaching on the reserve, and that when SINAC informed him of this trespass, he claimed it a misunderstanding of his property boundaries and gave up the piece of land. As far as the rice farmers building dams and diverting water from the lagoon, Cynthia mentioned this as just one factor in the overall scheme of agricultural activities causing degradation.

Cynthia placed a great deal of emphasis on the question of the refuge's boundaries, admitting that the state was partly to blame for what happened to the refuge, for not having the limits defined and marked:

It is important to have protected areas delineated and with signs. When I got there, there was nothing. Markers are important to ensure protection of the area and for the identity of the community. When people see signs and markers, they can more easily feel pride and responsibility for the area. If it is unsigned and unmarked, if it exists only in a digital archive in San José, how are local people supposed to relate to it and help protect it?

"But," she qualified her statement, "the community is also to blame for the degradation, not by all but some community members' deforestation and clear cutting over time."

At the end of our conversation, I realized that although I had more information, I had clarified little. Cynthia's discussion of Las Camelias focused on her land-use study and demarcating the wildlife refuge. Her emphasis on these experiences, to the exclusion of other matters, as well as her vagueness when I asked direct questions, served to distract from the bigger questions about how and why the lagoon had dried up, why SINAC had abandoned the

refuge, and what the deal with the buffalo was. In this sense, the information she shared fit within what seemed to be state environmental agencies' general approach to the matter: evasion.

For some local residents, the buffalo incident was another example, and an especially glaring one, of the local government and environmental ministry's abandonment of ordinary citizens and smallholder farmers and the corruption of public institutions. It was thus a continuation of what had happened with the rice farmers' water diversion: state institutions, including those responsible for protected areas and governing water permits, taking bribes from powerful landowners in exchange for being lax about regulations. Many people expressed general distrust of and frustration with not only SINAC and MINAE but all government agencies. Amada, who had been involved in the organizing around Las Camelias, put it this way:

Public institutions sell themselves. Public servants, too. MINAE will never help us. The Water Department will never help us. The municipality will never help us. No one will because they are all the same. The buffalo farmer has them all in his hand. In Costa Rica, democratic as it may be, there is a lack of enforcing the laws. And more here on the border!

As Amada's comment captures, for locals there was a clear link between state institutions' disregard for them and their marginal location on the northern border.

Border residents living around Las Camelias were frustrated with local government agencies, in particular MINAE, for betraying their original investment in the refuge and the community, and with the unjust laws¹⁰ that "go where the money is," they said as they rubbed their thumb and fingers together. "How hard is it to recuperate a lagoon like this?" Esteban asked one day. He continued:

I thought if we, the pueblo, the poor, dedicated time, we could do it. But it turns out that sometimes the most powerful screws over the weakest. We were working on this for a long time but the big farmers with money and power beat us. In the end, even MINAE did not help us: they met with us but were misleading us the whole time. Afterwards we

¹⁰ It was common for people to use the word "law," or "*la ley*," to refer not simply to actual laws, but rather more broadly how things are done, the rules at play.

realized they were saying one thing to our face and doing another behind our back—and then they gave the lagoon to this buffalo farmer, let him rent it. A five year lease!¹¹ And he puts his buffalo. You cannot give permission to lease or graze in a conservation area!

The other question was where the money for the refuge had gone. “Where do the government’s resources go? Millions of dollars come to the government of Costa Rica for these environmental projects! They use a small portion of that money to build a visitor center and then poof! Where does the rest of that money go?” asked one resident. “Corruption everywhere.”¹²

People were frustrated that despite their denunciations, the Costa Rican authorities had been unresponsive and had instead “thrown them through the hamster wheel,” as one man put it. Someone else explained it this way: “MINAE and representatives of the local government gave us the run-around to tire us out so that we would stop pushing the issue, sending us to a different person or different state agency each time...this is called *cansancio* (tiredness, exhaustion), so that we would get tired out.” Multiple people described similar experiences and perceptions of MINAE/SINAC and local government officials’ behavior: the “run-around,” “throwing the ball,” deflecting citizens’ inquiries and re-directing them from one agency to another. From the perspective of local people, *cansancio* and confusion were purposeful tactics of state agencies to muddle what had happened to Las Camelias and leave local residents in the dark.

According to Gerardo the restoration project has ended, but the buffalo remain. There are currently an estimated 80 milking buffalos and 250-300 total. Local people say the government has offered no explanation for the continued presence of the buffalo and insist that the buffalo are causing further harm, preventing rather than promoting the return of the lagoon. For them, the buffalo farmer’s presence in the protected area was allowing a public good and community

¹¹ When residents talked about the buffalo farmer’s lease they were referring to the study which gave him legal permission to be in the refuge for the duration of the study, which was supposed to be five years even though it ended prematurely.

¹² Suspicion about where funds for environmental projects ended up was common.

resource to become private property—and a slap in the face after all community members had done to organize and restore the wetland.

Based on the difficulty I faced trying to follow the case of Las Camelias and figure out what had happened, it is easy to see why people assumed wrongdoing on the part of MINAE, SINAC, and local government officials: there seemed to be no transparency from any government agency. In failing to respond to community complaints and denouncements, in failing to maintain clear communication with local communities regarding government decisions and actions, for example why they left the visitor center in the first place, government agencies had evaded created confusion around the entire case of Las Camelias. Initially, residents were confused as they went from MINAE to SINAC to the mayor's office in search of answers about what happened. Eventually, their confusion turned to frustration as they made no headway and came to believe it was a case of corruption, and another example of how border communities are marginalized from Costa Rica's claims to a green exceptionalism.

Even if restoring the lagoon and rehabilitating the wetland proved impossible, people were set on reclaiming the refuge. Some locals argued that the area should still remain a refuge and be left alone. MINAE should leave the land alone and let the forest regenerate, rather than let the area be farmed—with buffalo or anything else—and lose its protected status all together. “We want these people [the buffalo owner] to leave and leave the wetland in peace,” Esteban declared one day. The idea of re-establishing Las Camelias as a functioning wildlife refuge, even without the lagoon, gave some people hope that eco-tourism could then be a resource for community economic development, as it is in many other parts of Costa Rica. On a few occasions, people talked about fixing up and repurposing the old visitor's center as a community and environmental education center for tourists and local students. One day we went as a group

to clean up the space, machetes and brooms in hand. People whacked weeds, cleaned up brush, trimmed back bushes, swept debris and cobwebs from the floor. But these efforts lost momentum.

An abandoned wildlife refuge is not something one would expect to see in Costa Rica, a country whose positive global image is intricately bound to its conservation policies, which are consistently cited as a model success story. From the outside, Costa Rica is known as a country of nature and peace, natural harmony and peaceful coexistence, the land of “*pura vida*.” And the possibility of transforming Las Camelias into an eco-tourism attraction, however unlikely, was especially attractive to local people because Upala is one of the poorest municipalities in the country, located in one of the poorest regions, *la zona norte*. Upala and the whole northern border zone’s marginalized status was a common refrain in conversations with both locals and outsiders. Hari, a sociologist based in San José who worked as a consultant on a few development projects in the region, including two binational projects, referred to Upala as “*un olvido*” or a forgotten place in Costa Rica, “a forgotten territory that points to the asymmetrical development of our country...with the same peripheral zones and populations remaining poor.” He continued, “The whole border area is forgotten until there is a problem deemed nationally significant, like the territorial dispute with Isla Calero¹³, in that moment everyone paid attention to the region. But when else has there ever been much concern for that area?” In Costa Rica, he concluded: “there is a green discourse, a discourse of peace, a discourse of progress—but those government discourses come into conflict with what is actually happening in some places such as Upala: it is an institutional breach.”

¹³ See Introduction.

The conflict over Las Camelias and other socioenvironmental problems in the border region challenge ideas about Costa Rica's exceptionalism in environmental conservation, which I describe below. In addition, the economic difficulties that residents of Upala and the northern border region face, far from the capital city of San José and the Central Valley, challenge stereotypes of Costa Rica as a social democracy in which all citizens enjoy social equality. Nationalist narratives regarding Costa Rican exceptionalism date back to the 19th century, and emerged from a particular interpretation of the region's colonial past. Gutiérrez and Granados (2020) explain how Costa Rica distinguished itself as peaceful and democratic region with the figure of the "*labrantín*" (small farmer) or small property owner as the protagonist of Costa Rica's rural democracy. The "*labrantín*" is exceptional because he owns land but also because he is of Spanish descent and thus white. Thus Costa Rican narratives of exceptionalism are also racialized. Up until today, whiteness still forms part of the myth of Costa Rican exceptionalism.

In his book *Igualiticos*, which loosely translates as "We are all the same Ticos," Costa Rican sociologist Carlos Sojo (2010) writes about how coffee was also part of the foundational myth of equality in Costa Rica.¹⁴ This national myth, still pervasive in Costa Rica, supposes the existence of an "original equality" upon which Costa Ricans have constructed a society of peace, social solidarity and political stability. Sojo traces this "*el ideario igualitario*," or egalitarian ideology, which has been so central to Costa Rican identity, to the late 19th century, when coffee became an export and opened the country to international commerce. He shows how, while it did introduce new opportunities for income that distributed production towards small farms in less populated territories, coffee's processing and commercialization became progressively centralized. Coffee, in Sojo's analysis, created an agrarian structure of small owner-producers

¹⁴ The development of the coffee industry in the 19th century transformed Costa Rican economy and society. It was popularly called the "*grano de oro*" or grain of gold.

that gave an image of horizontality in the social relations of production, helping to construct the illusion of equality, when in fact the nascent coffee industry concentrated wealth in the hands of a few major producers.¹⁵

Geographers Gutiérrez and Granados (2020) write about the greening of Costa Rican nationalism, how Costa Rican nationalism was reinvented and reconfigured around a new “green exceptionalism,” which came to replace earlier forms of Costa Rican exceptionalism. Discourse of Costa Rica’s environmental exceptionalism emerged in the 1970s with the creation of the country’s first national parks. In his history of conservation in Costa Rica, Sterling Evans (1999) discusses how Costa Rica’s conservation movement was a response to rapid environmental destruction of tropical ecosystems due to the expansion of agriculture for export. When SINAC was created in 1994, the new agency divided the entire country into eleven “conservation areas.”¹⁶ I first learned about the conservation area model from a friend and border resident in Papaturro who, in a conversation about Costa Rican rice farmers’ water diversion, remarked in a sarcastic tone, “do you not know that ALL of Costa Rica— every inch—is conserved?!” (Roughly a quarter of the nation’s territory is under a protected area status other than the generic conservation area.)

In addition to the country’s reputation for protecting nature, Costa Rica’s glowing reputation within Central America and globally relies on being one of the only countries in the world with no military.¹⁷ A popular assumption exists that nature and peace go hand in hand; this

¹⁵ Arias Campos et al. (2018) extend Sojo’s analysis to pineapple to describe how the expansion of the new “*fruta de oro*,” or golden fruit, pineapple, becomes wrapped up in discourses of opportunity and social equality, when what it actually does is enrich few individuals from an elite sector while causing harm to and further impoverishing the vast majority of communities and workers, as well as local agricultural economies. For more on pineapple, see chapter 4.

¹⁶ The areas are: Guanacaste, Arenal-Tempisque, Arenal-Tilaran, Arenal-Huetar Norte, Cordillera Volcánica Central, Pacífico Central, Tortugero, La Amistad Caribe, La Amistad Pacífico, Osa, and Isla del Coco.

¹⁷ The government of Nicaragua vehemently disputes that Costa Rica has no army. In 2010, during the Isla Calero conflict, the Nicaraguan government published and began circulating a white paper titled, “The San Juan River of

is evident in the discourse around transborder peace parks that I discussed in chapter 2. Costa Rica both promotes and benefits from such discourses. (But as border residents' experiences demonstrate, not all Costa Ricans benefit.) These ideas also circulate within the country and among citizens. As Hari put it, "The environment and environmentalism are part of the *ideario* (ideology) of the Tico, even if it is hypocritical. Everyone eats it, digests it, it is part of *la canasta básica* (basic food basket). But," he said, "there is a huge contradiction between this green discourse and actual environmental practice and management."

In communities around Las Camelias and across northern Costa Rica, citizens criticize the government's claims to conservation and nature protection as hypocritical as they see evidence to the contrary in their communities, especially in the way the state supports particular forms of agricultural development, such as large-scale rice, cattle ranching and pineapple production, at the expense of smallholder farmers. The experience of many small-scale farmers, agricultural workers and other rural inhabitants in places like Las Camelias do not align with the national narratives about a state committed to protecting the environment and the promises of eco-tourism and sustainable development through conservation. Residents critique the uneven geographies of Costa Rica's celebrated conservation model, which, while on full display in places like *Parque Nacional Volcano Arenal*, is not evident in borderlands and marginal territories like Las Camelias, in large part because such places do not play a role in the economy of tourism that both drives and supports much of Costa Rica's conservation work. This shows how border zones, as much as they are critical territories for the state to demarcate, secure, monitor, and contain, they can also be marginal, peripheral, forgotten places.

Nicaragua: The Truths that Costa Rica Hides," a 76-page document which declares Costa Rica's claim to having no army, among other things, "false!"

It also suggests that conservation interventions do not always lead to increased state control, even in a border territory, and they can be a way for citizens to protest state abandonment and neglect. In the case of Las Camelias, residents mobilize the abandoned refuge as a symbol of state abandonment of a marginal territory in their political struggles to gain recognition. If borders are critical territories for central states to secure, and if conservation is about controlling and securing access to territory, then why do state agencies abandon these border conservation territories? Is it that the state does not have enough resources to enforce all the environmental laws in place, which several state officials told me was the case? And even if that is the case, who benefits from the neglect of border communities? Now I turn to a meeting in which local people had a chance to answer this question.

El agua es del estado (water belongs to the state)

A few months into my fieldwork on the Costa Rican side of the border, an event announcement circulated on the Save Las Camelias WhatsApp group, “The Municipality of Upala convenes all ASADAS to the Extraordinary Session on Water resources and their preservation.” ASADAS¹⁸ are rural community water associations responsible for managing local aqueducts under the umbrella of the *Instituto Costarricense de Acueductos y Alcantarillados* or AyA¹⁹, Costa Rica’s national public water utility, and they provide water to over 60% of the rural population (Madrigal et. al 2011). The urban center of Upala is about a forty-five minute bus ride from the rural communities right around Las Camelias. The invitation’s vague description gave the impression that the session would be an open forum. Community members, including many not directly involved with the ASADAS, planned to

¹⁸ *Las Asociaciones administradoras de los Sistemas de Acueductos y Alcantarillados comunales*, Administrative Associations of Communal Aqueducts and Sewers.

¹⁹ Costa Rican Institute of Aqueducts and Sewage

attend and present their various grievances about water to the local government—river water diversion by rice farmers and cattle ranchers, the degradation and disappearance of wetlands such as Las Camelias, and agrochemical contamination of waterways from pineapple companies.

The meeting began at 10 a.m. in a large, air-conditioned conference room in Upala's municipal government building. Set up like a town hall meeting, municipal council members sat in a panel at the front and attendees, at least 75 people from different surrounding border communities, including some from Nicaragua, took their seats around the room. Conversations quieted when two men from San José began the meeting, introducing themselves as the facilitators of a UNDP²⁰ project on water stress and climate change adaptation in *la zona norte*. It was the first time anyone in the audience had heard of the project. Lights dimmed as a PowerPoint began, only the buzz of the air conditioner audible in the transition. The title slide read, "Strengthening the capacities of the ASADAS to confront the risks of climate change in communities with water stress in Northern Costa Rica." The facilitators explained that the goals of the project are to reduce hydrological vulnerability due to climate change in northern Costa Rica by improving rural water services, strengthening the infrastructure and technical capacity of the ASADAS, and promoting sustainable water-use practices among users from the productive and private sectors. The project targets the *zona norte*, they explained, because it is one of the regions in Costa Rica with the most water stress and highest rates of hydrological vulnerability to climate change.²¹

"Resilient Watershed," read the next slide, on which they presented a map of the project's target watershed. Locally, one the defining characteristics of the area's rivers is that they flow

²⁰ Project partners are AYA and Gef (global environmental facility).

²¹ Neighboring Guanacaste to the west is often cited as the other most vulnerable region.

across the border into Nicaragua. In the presentation's rendering of the borderland region, Nicaragua was not labeled on the map but rather appeared as a white blank. The blue lines representing the many Costa Rican rivers that run north over the border: the Río Frío, San Ramón, and Papaturro among them, came to an abrupt end, flowing into a blank, white expanse. How could a "resilient watershed" ignore river connectivity and the interconnectedness of Nicaragua and Costa Rica's waterways and wetlands, despite working within miles of the border? This erasure of Nicaragua denied one of the key aspects of local social relations to water: a recognition of how water transcends the border. As the facilitators would soon find out, attendees included Nicaraguan border residents and citizens engaged in crossborder organizing who had come to discuss concerns regarding transborder water flows and stops.

The speakers proceeded to describe some of the climate adaptation project's main components: agrochemical monitoring of streams and waterways; hydrogeological studies; reforestation; the promotion and implementation of "good agricultural practices" such as sedimentation traps and minimal tilling practices. During a slide on "productive activities," one of the UNDP representatives listed pineapple as one of many crops grown in the region that affects water resources. Later, while explaining a land-use change map, he noted that the dark spots on the map marked areas of high concern, most of which corresponded to pineapple production. "Pineapple is very important to the country's economy, but it also does environmental damage," he remarked. He did not go into detail about how and to what degree pineapple production affects water systems in the region. The project's analysis of water stress and vulnerability in the region presented pineapple as one among many factors. But from local people's point of view, the expansion and mismanagement of the pineapple industry is one of the most important and urgent water problems in *la zona norte*. People continued to sit and listen,

but as the meeting went on, and especially after the discussion on pineapple, they grew more antsy, exchanging whispers and glances.

Throughout the hour-long presentation, the facilitators emphasized that different groups working together—ASADAS, smallholders, big cattle ranchers, dairy farmers, agricultural industry—is key to successful water conservation and helping rural communities adapt to climate change. “We have to work together to find solutions,” one of the facilitators stressed, “we cannot vilify cattle ranchers and owners of *las piñeras*. Taking a defensive or aggressive approach against those assumed to be most responsible for water and environmental problems is not the most effective way to make change.” He repeated a few times the trite phrase, “*Amigos no enemigos*,” friends not enemies. The presenters also commented on the individual responsibility of each person in addressing environmental and water problems: “We can each plant trees and other plants in our own yards and communities to help counter sedimentation into streams, rivers and other water sources.” The emphasis on collaborative dialogue between all parties and individual agency and responsibility shirked the question of differences in power, influence, and responsibility among different actors, and failed to acknowledge systemic, structural issues—in this case, unequal forms of agricultural development in which some landowners and companies have more access to and control over land and water.

When the PowerPoint ended, several people shot up their hands, eager to speak. Orlando, a school teacher and leader of the ASADA that encompasses Las Camelias, spoke first. Redirecting attention away from the UN representatives and towards municipal council members who had sat silently through the whole presentation, he asked, “What are you doing and what can be done to protect wetland areas? How can we save the wetlands?” He began calmly but his frustration became increasingly evident as he continued,

Cattle ranchers are absorbing the wetlands. Las Camelias is not a wetland anymore. Los Guatuzos [in Nicaragua] is disappearing. What there is, is buffalo. Introducing buffalo was the idea of MINAE technicians, but it has not worked and yet the buffalo remain. Where is the responsibility of MINAE here? The municipality? Large landholders?

Esteban then stood adding that prior to the buffalo, rice farmers had started diverting water in Las Camelias, leading to the demise of the lagoon: “These and other farmers continue to divert water and use intensive agrochemicals that permeate the soil and flow far beyond their fields.” Before council members or the UN representatives could summon a response, Berta, a vibrant, outspoken woman well-known in the community for her environmental activism, stood to speak. Building on the momentum, she asserted that the water problems she sees in her community and ASADA have little to do with climate change: “The government of Upala left Las Camelias Refuge to die. MINAE permits deforestation. Pineapple companies are poisoning our water. Public institutions do not work at all! They are not doing anything.” Energetic applause followed the comments, as the room reverberated with the residents’ direct charges and taking over of the meeting.

Council members managed to evade the confrontation, as the facilitators jumped in and attempted to return to the topic of the climate change adaptation project. But due to the gap between local people’s deep concerns and the content of the presentation, the facilitators’ attempts at refocusing the meeting failed; attendees continued to speak about matters unrelated to the presentation. Aileen, a woman from Nicaragua and leader in the cross-border campaign to save Las Camelias and the Papaturro River, rose next, “I am going to give a brief chronology because it seems some of us have forgotten the history of this issue.” She proceeded to review the genealogy of border communities’ efforts to save the lagoon and river and corresponding inactions of MINAE and the municipality. She concluded by proposing that Las Camelias and Los Guatuzos be designated wetlands in danger of extinction and that the municipality hold

another meeting to discuss what has happened and what actions can be taken—not in the municipal office building, but at Las Camelias on the land of the former lagoon so that “the reality of what has happened cannot be ignored or forgotten.”²² (The meeting never happened.) The audience clapped loudly for what felt like minutes.

Another man stood and said, “Another very important point that your presentation has not touched on is that all the aquifers are in private hands. To me this is far more important than what you are talking about.” The more certain of the two UN facilitators promptly responded, countering, “*El agua es del estado.*” Water belongs to the state.²³ This easy and eager, preformulated response was one of the only quick and direct responses since the facilitators were at a loss about how to answer most of the other questions and comments.

The same dynamic, of angry citizens trying to engage public officials interrupted by the UN facilitators attempting to refocus the conversation, persisted.²⁴ Considering the extent of people’s concerns and comments, the meeting could have gone on for days, but around noon the facilitators called the session to a close. Presenters and attendees agreed that clearly another meeting was in order, so they ended by scheduling a follow-up event to be held in one month.²⁵

²² After the meeting, Aileen remarked that while the meeting was not a success per se, such a meeting, with active citizen participation and public political critique, would not happen in Nicaragua under the current political circumstances. There is too much fear to speak out against the government on the one hand and blind support of Ortega on the other.

²³ The literal translation is water is of the state.

²⁴ Others stood and expressed related grievances about cattle ranchers deforesting huge tracts of land upstream, pineapple companies contaminating community water sources, other wetlands drained, and streams diverted. Comments focusing on possible institutional reforms made clear people’s discontent with existing institutional and state support for water issues. One person who brought up flooding in some border communities by rice farmers’ diversions suggested that there be one single ministry dedicated to water conservation. Attendees cheered in agreement. Someone else proposed that the ASADAS of Upala form a union: “If the light goes out, it’s not a big deal. If the street is in disrepair, we still go out by foot or horse. But if the water goes?... When I go to the government with concerns and complaints, they tell me to organize, so I’m organizing.”

²⁵ The follow up meeting was anticlimactic and considered a failure by local residents. It was intended as an opportunity for community members to voice their concerns and discuss these issues with municipal council members. Attendees were thus surprised to see that the same UN facilitators were leading the meeting, which they organized around group work. The municipality also changed the location of the meeting at the last minute.

People walked out somewhat discombobulated and with a pervading sense of, “what just happened in there?” Walking to the bus stop to head back to Las Camelias, Cecilia, a resident of a community near Las Camelias with whom I had arrived, said of the meeting, “Money rules (*la plata manda*) in Costa Rica. People who have enough money to pay their way— *ganaderos*, *arroceros*, *piñeras*, agribusiness—get and do whatever they want, even if against regulation, rule and law.

Despite community members successfully hijacking the meeting, their concerns and questions had been left unaddressed. The glaring disjuncture between the UN project’s definition of the region’s water problem versus local people’s concerns about water raises questions: What *kinds* of water stress and water vulnerability exist in northern Costa Rica? To what are water systems vulnerable? Who is vulnerable? UN project planners and Costa Rican state agencies targeted this region because of the vulnerability of its water systems to climate change, but the *zona norte* is also one of the places where rates of poverty and agro-export agriculture, especially pineapple production, are highest. The region is one of the most vulnerable parts of the country by many measures, including economic and political marginalization.

The UNDP facilitators framed the *zona norte*’s water problem as primarily about climate change and presented a picture of water stress in which the main solution lies with the ASADAS: if they have better infrastructure and can operate more efficiently as small businesses, this will help prepare communities for the growing water stress of climate change. This framing obscures existing water stress and environmental degradation, places responsibility on local communities to address the issue, and deflects from the broader structural problem of unequal access to land and water resources. The latter is a problem perpetuated in part through large landowners

abusing their power and state agencies either being complicit, failing to enforce water regulations, or not having the resources to do so.

Climate change is affecting and will continue to affect the water systems of *zona norte*, and many residents acknowledge this, but their response to the project made clear that for them, socioeconomic and political inequalities between poor rural communities versus large landholders and agricultural companies, are the more immediate and critical factors shaping water systems, water quality, and people's access to water. Vocal citizens challenged the presentation's climate change and water vulnerability narrative and turned the meeting upside down, calling attention to and demanding that local government officials respond to what they see as more urgent problems: illegal water diversion, disappearing wetlands and wildlife refuges, unchecked cattle ranching, destructive practices of pineapple companies, and the corruption of state institutions in the face of powerful landowners and agribusiness.

A premise of political ecology is that environmental issues are always fundamentally political. Citizen participation during the Q and A was political ecology in action, with residents themselves pointing out the deeply political aspects of water stress in their region. Foundational work in critical development studies shows how technical solutions ignore political, historical, and socioeconomic contexts, as well as the structural conditions that create or exacerbate "development problems" like poverty, food insecurity and water scarcity in the first place, namely global capitalism (Ferguson 1990; Escobar 1995; Watts 2011). Tania Li (2007) describes how "improvement projects" are rolled out via problematization: first identifying and bounding the problem, and then "rendering technical," which also renders nonpolitical and creates another boundary between experts equipped to solve the problem and local residents subject to the expert's plans and programs. Scholars have shown how blaming problems such as food

insecurity and declining water availability on climate change turns political structural problems into apolitical technical challenges (See Watts 2011 on climate change adaptation as merely the latest incarnation of neoliberal logic as applied to the environment and development).²⁶

Writing about northern Costa Rica, Silvetti and Cáceres (2015) point out that local and national government actors and pineapple companies try to direct public discussion toward technical solutions by focusing on “good agricultural practices,” as if such practices would resolve socioenvironmental problems such as environmental degradation, concentration of land, displacement of campesinos, and labor exploitation, when in fact the piñera model is structured on these problems.

More problematic than the project’s framing was the municipal representatives’ silence as residents raised their concerns. Municipal officials managed to sit through the meeting saying little; their silence seemed to confirm the widely held perception that local government and state institutions are “doing nothing.” Their silence and choice to not answer attendees’ questions and clarify the role of local government in addressing some of the problems people were raising fed the confusion that clouded issues such as what happened to Las Camelias. Instead of responding directly to residents’ concerns, government officials failed to clarify or acknowledge what the role of state institutions had been in situations such as the death of Las Camelias, or what they planned to do about it. Alongside the residents I spoke with afterwards, I thus came to understand the meeting as another example of evasion and a tactic of confusion.

Water belongs to the state. I heard this phrase repeatedly. Nearly every Costa Rican government official I spoke with about any kind of water issue reassured me, “*El agua es del*

²⁶ An important foundation of critical development scholarship comes from Latin America, specifically dependency theorists such as Fernando Henrique Cardoso and Enzo Faletto (1979) and Andre Gunder Frank (1966, 1967). Dependency theory was first articulated by Argentine economist Raúl Prebisch in the late 1950s, and gained prominence in the 1960s and 70s.

estado.” The phrase was a mantra, offered as the foundation of understanding Costa Rica’s water systems. It raised the critical question of ownership: Who owns water? According to Costa Rican law, water is a public domain. There are several different government agencies that govern water management and use. The Directorate of Water, a department within MINAE, is the principal state agency in charge of managing the country’s water resources and granting or denying water concessions. When I spoke with the agency’s director, she explained that they are responsible for granting all water-use permits, whether industrial, agricultural, or domestic. The process, she said, is the same for everyone: “Whether a company is planning to divert water for irrigation, or a small farmer wants to dig a well, they must apply for and be granted a water permit from us.” Another branch of MINAE, the National Groundwater, Irrigation and Drainage Service (*Servicio Nacional de Aguas Subterráneas, Riego y Avenamiento* or SENARA), also plays a role in water management, primarily in governing large-scale irrigation works. AyA manages potable water, sewage, and sanitation, and ASADAS operate under the umbrella of AyA.

Citizens, civil society organizations, experts, and some politicians criticize the current national institutional framework governing water resources for being overly diffuse; there are too many agencies with sometimes overlapping responsibilities and jurisdiction.²⁷ Because there is no single institution responsible for the planning, management, and use of water resources, responsibility is diffused, and administration of tasks is sometimes unclear. This, critics say, creates gaps in management and research (Castro et. al 2007; Guzmán-Arias and Calvo-Alvarado 2013). The other main criticism is that there is a lack of sufficient human and financial resources within government agencies tasked with managing water. Together, the lack of clarity in

²⁷ For nearly two decades, citizens and politicians within Costa Rica have been discussing the need for a new legal and institutional framework governing water ownership and use, and there have been efforts to create a new national water law but so far such efforts have not been politically successful.

institutional governance and lack of resources within state agencies facilitate illegal water-use and extraction. I was unable to determine whether the rice farmers near Las Camelias had permits to divert the river water, but it seems unlikely for two reasons: first, the critiques of Costa Rica's water management system described above, and secondly the strict water regulations regarding protected areas.

Legally, water belongs to the state, but the ASADAS play a large role in its management in rural areas, and some locals say that the ASADAs do not receive enough support from the state. The basic mission of the ASADAS is to provide rural water services. And while people like Orlando (the local ASADA leader who spoke), admit they could stand to improve their organizational, administrative and technical capacity to better protect and manage local water sources, ASADAS are not designed or equipped to regulate large landowners within—and certainly not beyond—their jurisdiction. That is the job of the government. Local people's challenges to the project highlighted the fact that ASADAS can have all the infrastructure and technical capacity in the world, but if rice farmers keep diverting rivers and pineapple companies continue poisoning the groundwater, improved infrastructure and technical expertise will not remedy the problem.

Asserting that water belongs to the state implies that it is therefore also used responsibly and/or protected, in good hands. Water flows and stops on the ground, however, such as river diversions by rice farmers and toxic drainage channels of pineapple companies, suggest otherwise and call into question the assumption that state ownership of water ensures its sustainable, equitable and responsible management. The man who voiced the concern about private aquifers, as well other Upala residents with similar observations, were noting this disconnect, that ownership does not inherently beget protection. State ownership of water

resources may imply a certain responsibility, but to whom? One person I spoke with following the meeting reflected on this question, “If it belongs to the state, then it belongs to everyone and therefore belongs to no one.” The loss of the lagoon and the list of water-related grievances from *zona norte* residents suggests that these border communities and the transboundary waterscapes that they inhabit are marginalized within the state’s water policies and proclaimed conservation ethic. Communities criticize that agricultural water-use often does not follow government rules and regulations, but rather happens according to the interests of people who have money and power. The clearest example of this is the expansion of the pineapple industry, to which I turn in the next chapter.

Chapter 4. Pineapple and people in the *corredor fronterizo*

In October 2018, I attended a forum at the University of Costa Rica (UCR) in San José intended to promote public dialogue on the increasingly controversial issue of pineapple in *la zona norte*. The first presentation was given by a woman from the National Front of Sectors Affected by Piñera Production (*El Frente Nacional de Sectores Afectados por la Producción Piñera* or FRENASAPP) on how her community was organizing in response to las piñeras polluting their community water sources. Researchers from a student organization called Kioscos Socio-ambientales then shared a series of maps charting the expansion of the pineapple frontier and how it has impacted local communities' lands, waters, economies, knowledges, and agricultural practices.

After lunch, a representative for the National Association of Pineapple Producers and Exporters (*La Cámara Nacional de Productores y Exportadores de Piña* or CANAPEP)²⁸ focused on how pineapple is key to the national economy and the development of the country's poorest regions such as *la zona norte*. A spokesperson for a major pineapple company Upala Agrícola followed, boasting of the company's many certifications and environmentally sustainable practices. On display at the event was the contested meaning of pineapple in Costa Rica: as destructive, a threat to water and health, and a socioenvironmental problem, or conversely, a driver of economic development and a social good. In this chapter I will show how the expansion of pineapple has also prompted broader debates about the border region.

In 2007, Costa Rica became the world's number one exporter of pineapples. FRENASAPP formed the same year to organize around pesticide issues. Since then, the industry

²⁸ CANAPEP, formed in 2003, is the main pineapple lobby. Amid widespread citizen concern over the industry's growth and practices, it has become a powerful force in defending and shutting down criticisms of the sector.

has grown rapidly. In the last ten years, production has increased exponentially, primarily in Los Chiles, Upala, and other parts of *la zona norte*—one of the country’s poorest and most marginalized regions.²⁹ Grown primarily by corporations on extensive monocultures, pineapple has visibly transformed the landscapes of the northern region. In some places, activists’ language of the *frontera piñera* or pineapple frontier is taking on a new meaning, with pineapple fields now reaching the very edges of the border with Nicaragua, a space which is legally a wildlife refuge, as I discuss further below.

The rapid—and, critics say, unregulated—expansion of the *frontera piñera* across northern Costa Rica has generated public outcry in the northern region and nationwide.³⁰ “*No a la expansión piñera!*” (No to pineapple expansion) has become a rallying cry. Communities living near the piñeras, activists, UCR student groups, environmental NGOs, and scientists have organized to denounce the pineapple industry’s practices and demand that the government adopt and enforce stricter regulations of piñeras’ growth, land and water-use practices, and labor conditions. Critical problems include ground and surface water contamination; land-use change and soil erosion; diversion and sedimentation of rivers; concentration in land ownership; displacement of campesinos; loss of food sovereignty; failure to comply with labor rights; and negative health effects due to agrochemical exposure. Conventional pineapple is a chemical-intensive crop. Today, Costa Rica is estimated to have the most pesticide-intensive agriculture in

²⁹ In the early years, pineapple production was concentrated on the Caribbean Coast, where most of Costa Rica’s bananas are grown, but in the past ten years production has been concentrated in the northern region.

³⁰ Costa Rica’s economy has historically depended on agro-exports, as is true of most Central American countries. People often compared the growth of the pineapple industry to other boom crops throughout Costa Rica’s history. Indeed, one person at the UCR forum said, “Everyone is worried about the expansion of pineapple. But the same thing happened 100 years ago with the expansion of coffee production and then again 50 years ago with the growth of banana production. As these crops expanded, everyone was worried about their social and environmental impacts. Is pineapple really any different? Pineapple is just the object of attention at the moment, the most visible thing right now.” Activists’ response to this was: “Pineapple has grown in 10 years what bananas grew in 100.” They also counter that the environmental impact of pineapple is much worse than that of coffee and bananas, which research confirms (see Salazar 2008).

the world (Galt 2014³¹), which has been attributed to the rise in the pineapple industry. The industry's agrochemical contamination of water, in particular through its use of the herbicides bromacil and diuron, is especially worrisome and has been one of FRENASAPP's main foci.³² Most recently, a 2018 study found bromacil, which was banned in 2017, in the surface and groundwater of several communities in the north.³³

Critics argue that the industry's harm to soil, land, water, and public health outweigh its economic benefits, and that economic growth from pineapple has not contributed to regional and local development that benefits local people, workers, or communities—it has only profited large companies, while harming local communities, poisoning water, and displacing smallholder farmers.³⁴ In Los Chiles, one of the places that on paper appears to be one of the top beneficiaries of the industry, even members of the local government are opposed to pineapple companies. The municipal environmental manager complained that even though piñeras now occupy a huge amount of land there, they do not pay any local taxes because as part of a *zona franca* (free trade zone), they qualify for tax exemptions.³⁵

³¹ Typically measured in weight of pesticides applied over a certain area and over a certain period of time, such as kilograms per hectare per year (Galt 2014: 5). See also Galt 2008.

³² One historical precedent to FRENASAPP and activism against the piñeras in general is an organization called Foro Emaús, a coalition of civil society actors which denounced and opposed the pesticide technology used on banana plantations in the Caribbean region. The group was most active between 1993 and 2005, and according to Barraza et. al 2013, not only shaped people's risk perceptions of pesticides and motivated many people to become active in pesticide issues but also played a significant role in strengthening civil society activism in Costa Rica. Some members who were active in Foro Emaús are now active in FRENASAPP. See Barraza et. al 2013.

³³ The study was conducted by the Research Center of Environmental Pollution (*Centro de Investigación en Contaminación Ambiental* or CICA) at the UCR. The Costa Rican government banned bromacil in 2017 because it is known to leach through soil and has a high risk of contaminating water and negatively affecting human and environmental health.

³⁴ There is a growing body of research within Costa Rica documenting the pineapple industry's social and environmental impact in the country's rural areas (see, for example, Acuña-González 2004; Rodríguez et. al 2018; Aravena 2005; Maglinanesi-Sandoz 2013).

³⁵ Tax exemptions granted to certain companies was a huge point of contestation in the major national protests over fiscal reform that erupted in Costa Rica in 2018, which went on for months and involved a public worker's strike.

In this chapter, I examine how debates over pineapple have drawn national attention to the usually invisible border region, its waters, landscapes, and people. This fruit has raised critical questions about the border region's status, significance, and relationship to the rest of the country and to the national image. Some Costa Rican scholars (Rodriguez et. al 2018; Rodríguez Echavarría and Prunier 2020) analyze the border zone as an extractive zone in which state agencies and private companies exploit the structural inequalities of the border, a dynamic made possible by neoliberal economic and agricultural policies that promote agro-export economies and profit over local, domestic food production and clean water.³⁶ Costa Rica's pineapple industry in *la zona norte* relies on its geographical proximity to the border: hundreds and possibly thousands of undocumented Nicaraguans cross the border back and forth every day informally to work for the piñeras. In the northern region, roughly 90% of pineapple workers are Nicaraguan (Lawrence 2010).³⁷ They are overworked, underpaid, and exploited, working long hours and risking chemical exposure, on a contractual basis. The surge in daily border flows

³⁶ Pineapple and other instances of extensive, harmful agro-export crops are part of a colonial legacy. An agro-export model of development causing social and environmental harm in a Central American country is a very familiar story, much older than the advent of neoliberalism of the 1980s. Central American economies were built on agro-exports. The infamous term "banana republic" was first coined by U.S. author O. Henry in his 1904 novel *Cabbages and Kings*, to describe the situation in Honduras and other Central American countries being exploited by the United Fruit Company (today Chiquita Brands International). In the case of Costa Rica, in 1941, political activist Carlos Luis Fallas Sibaja published an autobiographical novel called *Mamita Yunai*, about his experiences as an agricultural laborer on the United Fruit Company's banana plantations of the Atlantic Coast. (The title of the book refers to the United States, "Yunai" sounds like U Ni, as in United States.). The book, which remains famous and extensively read in Costa Rica, documents the exploitation, gruesome working conditions, impoverishment, and other injustices suffered by workers, especially Afro-Costa Ricans and indigenous peoples, by the banana companies.

Banana plantation enclaves of companies like the United Fruit Company at turn of the century in Central America in particular are an important historical precedent to pineapple in northern Costa Rica. These export enclaves dominated the region during the first half of the 20th century. Some of these enclaves were transborder enclaves, particularly between Costa Rica and Panama, where United Fruit and Standard Fruit banana plantations literally straddled the border (Girof 1997).

³⁷ Nationwide the percentage is roughly 60%. The statistics are similar in Costa Rica's other major agricultural industries such as coffee. The pineapple industry is different in that it brings many laborers who cross the border every day, rather than reside seasonally or more permanently in Costa Rica.

brought on by the expansion of the pineapple industry challenges state discourse about border control and regulating migration.

Water contamination by the piñeras has also led to another crossborder flow: that of people in Nicaragua crossing the border to join protests in *la zona norte* to protect what residents consider shared waterways, such as the Río Frío, the transborder river I presented in the introduction and will discuss further in this chapter. Water flows and the chemicals they carry, as well as crossborder mobilizations over water, challenge ideas about water resources as national (contained within the national territory) and highlight border residents' solidarity across an unstable border.

These circumstances also highlight the exclusion of the border region from Costa Rica's environmentalism. For many residents of *la zona norte*, piñeras are the epitome of the state's environmental hypocrisy: the unchecked expansion of chemical-intensive, industrial monoculture pineapple clashes with Costa Rica's reputation as a model country for conservation and environmental stewardship. "Where is the *pais verde* (green country)?" they asked. Border residents expressed frustration that the country's eco- and green discourse—while true for popular national parks and tourism destinations—is totally absent in the northern borderlands and waters, far from San José and not on the average tourist's circuit.

Since at least 2011, *piñeras* have been encroaching on various wetlands and protected areas in the north (see González Gamboa 2019). Environmentalists and some concerned locals have denounced this encroachment as "*piñera* invasions." One affected area is the *corredor fronterizo*, or border corridor, a two-kilometer strip along the border which legally has been inalienable state land since the first border treaty in 1858, and a wildlife refuge since 1994.³⁸ The

³⁸ Piñeras are also encroaching on other important wetland areas such as Caño Negro Wildlife Refuge, a protected wetland area around the Río Frío near Los Chiles.

presence of pineapple in the border strip has also brought greater visibility to another border issue: the ongoing legal battle of corridor inhabitants, most of whom are smallholder farmers, to secure legal land titles. The presence of pineapple and people in the protected area points to the limits of the Costa Rican state's control over its protected areas, especially along border.

How have state agencies, foreign governments, local communities, agricultural companies, and environmentalists made claims on or represented the border region, its people, lands, and waters, for what purpose, and to whose benefit? How do these mobilizations of the border intersect and come into conflict? This chapter explores these questions, and in doing so, shows that the border is contested and unstable. In part one, I outline the history of the border as an agricultural and economic frontier and specifically discuss the agricultural and economic development projects in the border region. I focus on the border town of Los Chiles and the Río Frío which flows through Los Chiles and into Nicaragua, and I begin with a state-led and U.S. government-funded “sovereignty reclamation” plan rolled out in the 1970s in response to the Sandinista Revolution. Building on the work of Costa Rican scholars (Granados et al 2005; León 2015; Campos 2020), I show how the agricultural colonization and infrastructure border reclamation projects of the 1970s and 80s laid the foundations for the structural adjustment policies beginning in the mid-1980s that transformed agriculture in *la zona norte*, and eventually for the arrival and development of pineapple.

In part two, I look at the history of the *corredor fronterizo* as inalienable state land, and I discuss debates over the territory's most recent incarnation as a wildlife refuge. Building on the argument I have made in other chapters, my analysis of the border wildlife refuge suggests that protected areas do not necessarily strengthen government control over borderlands, waters, and people, as standard scholarly critiques suggest. Instead, as I show, on the Nicaragua/Costa Rica

border, the abandonment or neglect of these areas becomes a political tool for people to critique the state, and the resulting protests further destabilize an already unruly border.

Reclaiming and developing the border: the agricultural transformation of la zona norte

Los Chiles, which is located just four kilometers from the border, was settled along the Río Frío by Nicaraguans who arrived in search of rubber in the last decades of the nineteenth century. Born in the slopes of Costa Rica's Volcano Tenorio, the Río Frío flows for about 70 kilometers before reaching Los Chiles and then crosses the border and empties into the Río San Juan. The area was originally part of the territory of the Guatuso indigenous people, many of whom were killed or displaced by rubber tappers. The river was the town's center and main highway. Los Chiles, as well as the region's other two main population centers, Upala and Guatuso, had closer social and economic relations with the Nicaraguan city of San Carlos and the Río San Juan region than with the rest of Costa Rica, and remained marginal, sparsely populated, and relatively unincorporated into the Costa Rican state for almost a century. The Río Frío was one of several rivers that formed the natural infrastructure of the region's water-based network of commercial, social and cultural exchange, transporting people as well as crops and commodities such as lumber, rubber, and later cacao and ipecacuanha,³⁹ between various settlements of northern Costa Rica, southern Nicaragua and to the Caribbean Coast for export.⁴⁰ At that time, water routes were the only way to reach the Atlantic Coast and its ports; people traveled north via transborder rivers such as the Frío, San Carlos and Sarapiquí, and then followed Nicaragua's Río San Juan east out to the Caribbean Sea. The Río Frío water route between Los Chiles and

³⁹ Ipecacuanha is a medicinal plant locally known as *raicilla* or *raíz de oro*, root of gold for its high value.

⁴⁰ It was the Río Frío that attracted many early settlers to the region in the 19th century because it provided a commercial access route to the Caribbean.

San Carlos of Nicaragua was an artery of this borderless system of fluvial exchange and communication.

This system continued into the 1970s. Public boats used to go back and forth between Los Chiles and the nearest Nicaraguan city of San Carlos several times daily, and passengers paid just a small fee to make the trip, an easy and scenic 45-minute boat ride down the Río Frío's calm waters. Jim, who is originally from Nicaragua and came to Los Chiles as a child when his dad got a job with the U.S. Rubber Company, was one of many long-time residents who recalled how the Río Frío port used to be the center of town, the heart of the local economy, and a vibrant social space. Boats came and went multiple times a day every day, carrying Nicas, Ticos, store bought goods, chickens, pigs, and the occasional cow. Based on the stories I heard from those that remember this time, the river was not just a center of transit and economic activity, but also an important part of people's identities and engrained in their everyday lives. In particular, the river played a key role in people's crossborder relationships and their shared identity across the border, which at that time was unenforced and had little to no impact on people's everyday lives.



Figure 10. Fisherfolk on the Río Frio

During the 1960s and 70s, from the perspective of state agencies and people in the Central Valley,⁴¹ the northern border was an unknown and wild frontier, full of land to be settled. As the agricultural frontier in other parts of Costa Rica ended (meaning that human settlement had spread and there was less “free,” unclaimed or unsettled land) (Augelli 1987), the state sought to incorporate its peripheral territories. In 1961, the Costa Rican state created the *Instituto de Tierras y Colonización* (ITCO), or the Lands and Colonization Institute, which, with the help of two German geographers (Sandner and Nuhn 1966), began surveying the remote northern

⁴¹ The Central Valley refers to San José and surrounding major cities of Heredia and Alajuela, the tri-city region home to the majority of the country’s population.

region and making plans for its integration and development. The integration of the border zone had begun but remained a relatively peripheral concern until political events in Nicaragua in the 1970s accelerated and amplified the state's efforts to incorporate the northern territory.

In the context of the Cold War, the border zone became the site of U.S. intervention and an ideological frontier in the global battle to “contain communism”—U.S. government speak for securing and retaining economic and military dominance. As I described in chapter 2, in the years leading up to the Sandinista Revolution of 1979, the border region became a front for the growing Sandinista rebel movement against Anastasio Somoza, the dictator ruling Nicaragua. Initially, Costa Rica, then under the leadership of President Rodrigo Carazo (1978-1982), publicly supported the Sandinistas, who were organizing and broadcasting on their radio station, Radio Sandino, from Costa Rican territory. But with growing civil unrest and talk of communism in neighboring Nicaragua, Costa Rican and U.S. government officials feared the northern border would fall prey to Sandinista influence, and began to roll out a plan to reclaim this national territory which might be “lost” to Nicaragua (if it had not already been). When Luis Monge entered office in 1982, Costa Rica's policy toward Nicaragua and the Sandinistas, who were then in power, shifted dramatically.

The Costa Rican government, with financial and logistical support from the U.S., planned and executed a “Plan for Recuperation of National Sovereignty of the Northern Zone,” designed to secure the northern border territory.⁴² The plan entailed a multipronged strategy of road building and other improvements to infrastructure (*política vial*) including expansion of electrification and communications, as well as agricultural colonization of the area through land

⁴² Funds were channeled in part through Food for Peace aid, or Public Law 480 (PL480), also known as the Agricultural Trade Development and Assistance Act, through which Costa Rica bought US corn, and in return the US took the payment and donated it back to Costa Rica to support programs that benefited US geopolitical interests such as national sovereignty recuperation.

distribution to campesinos (Granados et al 2005) and promotion of agricultural industry. The construction of new roads connected Los Chiles and other northern towns to the capital of San José and the rest of Costa Rica, from which it had previously been almost entirely isolated. This development eventually led to the provision of government services such as health care, electrification, and drinking water, that do not exist on the Nicaraguan side of the border. As intended, the project also led to the decline of the fluvial network that had historically made the *zona norte* a binational or transnational region.

Thousands of mestizo farmers, primarily from the Central Valley, were resettled in the region and received land titles from the *Instituto de Desarrollo Agraria* (IDA) or Institute of Agrarian Development.⁴³ Carlos, an anthropologist familiar with the region's history who first told me about this project, explained that the land settlement policy was racist: while it was nowhere written in the official policy, IDA only gave out land to white people.

The idea was to create a clear distinction between what was Costa Rica and what was Nicaragua. Reclaiming this region as part of the nation, at this time for Costa Rica, meant populating it with white people. They also tended to be capitalist *campesinos*, not producing solely for subsistence but rather to sell. This is how *la zona norte* was reclaimed, developed, and became newly part of Costa Rica in a symbolic sense.

“Now,” he concluded, “the whole region is full of corporate farms and hydroelectric dams.”

Government agencies promoted the plan as the Development Program of the Northern Zone (*Programa de Desarrollo de la Zona Norte*), to develop Costa Rica's *zona norte* and to facilitate its agricultural and economic integration. But the project's geopolitical objectives in the context of the Cold War became increasingly clear.⁴⁴ In 1981, Reagan secretly authorized the

⁴³ IDA was formed in 1982, out of ITCO. One of its main projects was the development of the *zona norte*.

⁴⁴ The project gained attention in the international media when U.S. journalists uncovered project documents sent between Costa Rica and Washington revealing the project's geopolitical objectives as part of an emerging US policy against Nicaragua. These documents, for example, assert that the *zona norte*—being the most isolated and least densely populated region of the country make it particularly vulnerable to “foreign influence,” and therefore the government of Costa Rica must increase the population density and economic activity of the region (Anderson 1983). As Carlos put it, “the plan was basically a policy of containment.”

CIA to recruit and support Nicaraguan rebels against the Sandinistas. Los Chiles and other areas along the border, once Sandinista outposts, became the southern front of the CIA-backed Contra as the Contra War began. Between 1982 and 1985, rebel leader Eden Pastora Gomez, who had originally fought with the Sandinistas against Somoza, dotted the border with guerrilla camps as he mobilized a southern front which came to be known as the *Alianza Revolucionaria Democrática* or ARDE. The war brought more Costa Rican state authorities to Los Chiles. The Costa Rican government's quiet support for the Contras, permitting them to set up camps and supply operations within its borders around places like Los Chiles, prompted fierce criticism domestically, from Nicaragua, and internationally, calling into question Costa Rica's reputation as a peaceful country with no army. Due to the war, the border was officially closed for several years, roughly between 1982 and 1987.

Jim's brother died in the war fighting with the Sandinistas. He spoke, as so many Nicaraguans do, of the war as marking a distinct before and after. In addition to his personal loss, the war changed everyday life in Los Chiles, and all along the border, throughout the 1980s. Due to its strategic location, Los Chiles was one of the most volatile spots on the border, caught up in the conflict between the Sandinistas and the CIA-backed Contra. Traffic on the once bustling Río Frío, which for so long had been a center of life in Los Chiles and a key route connecting communities across the relatively open border, came to a standstill. All river traffic north toward the border came to a halt. Only small fishing boats remained, and they only went upstream. While the river was unusually quiet, there were new kinds of motion and activity in and around Los Chiles as Contra rebels began to organize and source supplies there. The local population grew rapidly as tens of thousands of Nicaraguans fled across the border to escape the war. Today, residents recall *gringo* journalists with big cameras around their neck coming in and out

of town and Contra soldiers coming in the middle of the night to buy food and other supplies at the shops. People also recall seeing more planes than usual at strange hours of the night, and sometimes hearing explosions and gun shots.

The road-building and agricultural re-settlement initiatives of the state's sovereignty reclamation plan laid the foundations for new kinds of agricultural development that would come to transform *la zona norte* beginning in the mid-1980s. Up until the mid-1980s, agricultural production in the region consisted mainly of small and medium-scale farmers who worked either independently or through cooperatives. As Costa Rica adopted structural adjustment policies in the 1980s and 1990s,⁴⁵ agriculture in *la zona norte* began to shift from primarily small-scale production of basic grains, cacao and small-scale cattle ranching for subsistence and national markets, to large-scale production for export.⁴⁶ Structural adjustment agreements, signed in 1985, 1989 and 1995, led to the cutting of public funds and reduction of government programs, and promoted free trade and competition in world markets.

In the agricultural sector, in addition to the liberalization of agricultural markets, neoliberal reforms involved "Agriculture for Change" programs which promoted "agricultural diversification" through the introduction of new commercial crops such as oranges, pineapple, hybrid cacao, passionfruit and heart of palm. Many of these proved commercially unsuccessful, but some, such as citrus and pineapple, did well and developed rapidly, expanding across the region. These new, non-traditional export crops began to extend over more and more land, replacing traditional subsistence crops, and the landscapes of the *zona norte* began to slowly transform. In addition to structural adjustment policies, the state implemented a series of laws and policies that incentivized foreign investment in agricultural industry and the production of

⁴⁵ Costa Rica was one of the first Latin American countries to initiate a structural adjustment program.

⁴⁶ See Edelman 1999 on Costa Rica's rural social movements response to these changes.

non-traditional crops like pineapple through the 1980s and 1990s (for a timeline of these laws see Campos 2020:38). Since the 1940s especially, Costa Rican agricultural policy emphasized state assistance for smallholders and promoted self-sufficiency and reduction of imports (Granados et al 2005). By the end of the 1980s, state policies supporting traditional sectors and smallholder farmers had been almost entirely phased out. Costa Rica first started exporting pineapple in 1986.⁴⁷

This shift towards agro-industrial export systems, or process of “productive reconversion” (Granados et al 2005), culminated with the signing of the Central American Free Trade Agreement (CAFTA, or TLC—*Tratado de Libre Comercio*) in 2005, which Costa Rican signed despite fierce opposition from broad sectors of society (see Edelman 1999).⁴⁸ With the passing of CAFTA, thousands of smallholder farmers, unable to compete with the new cheap imports of basic grains such as rice and beans, and without government support, were effectively pushed out of the market and impoverished. The new agro-export systems began to displace traditional agricultural structures and small- and medium-scale producers of basic grains such as beans and corn. As small-scale agriculture became less viable, people who identified all their lives as *campesinos* became *trabajadores agrícolas* or agricultural workers.⁴⁹

The Río Frío border re-opened in 1990 once the Contra War ended, and the river resumed its role as the primary border crossing. Also in the 1990s, as part of SI – A – PAZ, the postwar

⁴⁷ Del Monte started the first pineapple operations for export in southern Costa Rica (Maglianesi Sandoz 2013). The big transnational companies like Dole are mostly concentrated in the south and the Caribbean region, whereas growth of las piñeras in la zona norte has been primarily large Costa Rican companies owned by Costa Rican elites.

⁴⁸ Workers, campesinos, environmentalists, students, scholars, and other citizens formed a national movement to fight against the agreement, arguing that it would destroy local economies, erode Costa Rica’s autonomy, and harm smallholder farmers (Frajman 2012). Whether or not the country should join the deal became a hotly contested debate and ultimately involved a national referendum. At the end of a bitter dispute, in 2005 CAFTA was passed.

⁴⁹ This trend continues. Over the past decade since the pineapple boom in the *zona norte*, for example, there is a growing trend of smallholder farmers selling or leasing their land to pineapple companies, leaving independent farming to become agricultural workers or seek employment elsewhere.

peace park project described in chapter 2, some areas around Los Chiles became protected areas (which would come to further complicate border dynamics, as I discuss in part two of this chapter). The Costa Rican state constructed a small *puesto migratorio* or migration post and customs office in the center of Los Chiles at the main river dock, but people say that through the 1990s, the river was a relatively lax border. One of the former regular boat drivers, Oscar, told me that in the 90s, a curfew was implemented, and boats were supposed to leave San Carlos, Nicaragua by 4:00 pm. Despite the curfew, they would often stay late drinking in Nicaragua, where beers were much cheaper, until after midnight. “We would bring a bottle of *Flor de Caña*⁵⁰ and some cigarettes to the Nica guards and they would let us pass,” he laughed. But the border patrol on both sides became more strict in the early 2000s, and then, Oscar lamented, “When they built the road...the road was the end.”

In 2015, just a few kilometers from Los Chiles, a new official land border crossing opened (the same border crossing described at the start of the Introduction). The new border post was accompanied by a new crossborder highway. Las Tablillas became the second official land border crossing for the whole 309-kilometer long (192 mile) border between Costa Rica and Nicaragua. The first is located to the west at Peñas Blancas, along the Pan American highway (which the business and development sectors also call the *Corredor de Integración Pacífico*, or Pacific Integration Corridor), and by far the busier of the two. The new border crossing was part of a Costa Rican border integration program and a regional infrastructure project funded by the Interamerican Development Bank and implemented as part of a Central American free trade and regional economic integration initiative known as the Pueblo Panama Plan (PPP).⁵¹ Las Tablillas

⁵⁰ Nicaragua’s premier brand of rum.

⁵¹ For a discussion of the relationship between the PPP and the Mesoamerican Biological Corridor project of the 1990s, aimed at creating environmental conservation connectivity through the region, see Grandia 2007.

is a strategic location to access Costa Rica's Caribbean ports, and its opening was designed to reduce transit times for certain trade routes. It is estimated that with the new crossing, 40% of traffic from the Pacific will move to the east and cross at Las Tablillas. State agencies made statements that the new border post was also intended to better control migration flows on the border.

The opening of the land border at Las Tablillas and construction of the road dramatically changed everyday life in Los Chiles. One day, I sat and drank a coffee with Jim under the sweltering heat of the tropical midday sun as we watched several trailer trucks speed by, full to the brim with oranges, the name TicoFruit on the side. TicoFruit is a citrus exports company founded in 1988 whose fields and operations straddle the border between Nicaragua and Costa Rica. It is currently owned by a Costa Rican, a Nicaraguan (Carlos Pellas, Nicaragua's first billionaire and richest person) and a Panamanian. Minutes later, trucks full of pineapples followed. Trucks full of agricultural exports are common forms of traffic now, he told me.

As border traffic redirected to Las Tablillas, the Río Frío quieted once again, and Los Chiles lost the business around the border crossing. Whereas life and commerce in Los Chiles had once revolved around the river, the Río Frío began to decline in importance. Dozens of boat owners and drivers were left jobless. The new border infrastructure was framed as a way to promote national and regional trade and development, but locally, it had the opposite effect.

Once the center of a lively port, the riverfront and dock in Los Chiles are now a quiet corner of town with the air of a half-abandoned place. A fading sign, "*puesto aduanera*," marks the former customs post building, which sits closed and inactive. Next door, the old migration office is also closed, except for one section of the building now used as a little *pulperia* for snacks and sodas, which usually appears to be closed. A dozen or so boats are anchored to the

dock. On any given afternoon, kids enjoy the tiny park and playground as a few people fish from shore. While people used to come through town in much higher numbers to cross the border on the Río Frío, they now generally bypass Los Chiles entirely, staying on the bus straight on the highway towards Las Tablillas to cross into Nicaragua by land. Today, the river is used mainly by fisherfolk and for tourism; tourists come to Los Chiles for just half a day to take a two-hour boat tour to see sloths, iguanas, and a variety of birds along the river's shores. A few families dominate the small tourism industry. The construction of the new border crossing and precarious economic situation of Los Chiles—especially in contrast to the now extensive presence of so many profiting piñeras in the area—contributes to residents' frustration with the government.

Despite the new official border crossing at Las Tablillas, the Nicaragua/Costa Rica border remains relatively open and unpatrolled. Locals talked about how the Costa Rican government makes more of a show about border enforcement in the areas right around the official border post; border police, for example, are stricter, and make more of an effort to control and patrol the border around Las Tablillas. But elsewhere, people say, the border is the same as it was: porous and full of *puntos ciegos*. It is much less common now for people to cross on the Río Frío, but they do cross using other, smaller, lesser known rivers. Hundreds of Nicaraguans cross the border without formal permission every day. Around Los Chiles, much of this migration is the daily movement of Nicaraguan laborers coming to work on the pineapple fields. Trucks from the piñeras pick workers up near the border, pack dozens of them in, and transport them via rural backroads, including some through the TicoFruit orange plantations. They never pass through migration and customs at Las Tablillas. This flow of migrant workers highlights the fact that despite border control discourse and the new controls at Las Tablillas, it is not in the interest of the Costa Rican government to keep Nicaraguans out; the Costa Rican

economy depends on Nicaraguan migrant laborers for many industries including pineapple. And, of course, permitting or turning a blind eye to the daily movement of undocumented workers ensures cheap labor for companies.

Despite being less freely connected to Nicaragua than they once were, inhabitants of Los Chiles still have strong ties across the border, and Los Chiles is considered a transnational community. (Ticos in other parts of Costa Rica joke that Los Chiles is part of Nicaragua.) Many residents' lives continue to extend across the border. Writing about Los Chiles and the broader border region, Morales (1997a) notes that the forms of nationalism, identity and territorial citizenship there are in a permanent process of questioning and transformation. He analyzes how residents do not simply transgress the border physically but also challenge, blur and exceed its existence as a legal category (hence the title of his work, *Fronteras Desbordadas*). In a similar vein, Rojas and López write of this porous border region as composed of: "territories of transition between permissible spaces and prohibited ones...a territory of contradictions, with a customs opening and blocks to the transit of 'illegal' migrants, with a river that separates and unites people from both countries who inhabit its banks..." (2012:45). That residents' relationships across the border remain strong and that some people continue to disregard or even transgress the border despite the new border post, is noteworthy.

The history of Los Chiles situates the expansion of the pineapple industry in the *zona norte* within the broader history of border-making projects and agricultural transformation of the border region. It also points to how the intensification and industrialization of agriculture across northern Costa Rica that began in the 1980s through structural adjustment policies and neoliberal reforms such as CAFTA has entailed both state bordering projects and global economic logics that encourage open borders. The socioenvironmental problems related to the growth of the

pineapple industry today highlight the tensions that structural adjustment policies have created: the dominant development model conflicts both with Costa Rica's discourse on sustainable development and a national-cultural identity that hinges on the successes of a social democratic state, which since the 1990s has undergone significant cutbacks related to structural adjustment programs (Sandoval 2004).

For Jim and others, the river is still a landmark of the history and identity of the place, and to their personal and collective history and identity, although its daily significance for people has declined. Border residents in Los Chiles and surrounding towns expressed nostalgia for how life on the river and the border used to be. I heard countless stories about the era when the river was a bustling route and center of movement and life in the region. While it is no longer the open, free flowing border crossing that it once was, the Río Frío and people's relationships to it still matter. In recent years, the river's importance as a transborder waterway has re-emerged in a different sense: as a conduit for toxic chemicals and a center for crossborder organizing against pineapple companies and water contamination. Residents' protests could be read as contesting not just las piñeras, but the history of territorial and economic projects described above that have led to the persistent inequalities and injustices in the border region. In the next section, I describe another border making project—making the border a wildlife refuge—and another instance of how local people are resisting it, repurposing border interventions and discourses to their own ends.

Protecting the border: border as wildlife refuge

Even as piñeras have spread across *la zona norte*, another state project in the borderlands and waters is one of conservation and environmental protection, and border residents contest it on several fronts. *La milla fronteriza* (or border mile) refers to a two-kilometer corridor of land,

water and wetland along the Costa Rican side of the 309 kilometer or 192 mile-long border between Costa Rica and Nicaragua. It is also known as *la franja fronteriza* or *corredor fronterizo*. Since 1994, this area has been designated a state-protected wildlife area, the *Refugio Nacional Vida Silvestre Corredor Fronterizo*⁵² (RNVSCF), or Border Corridor National Wildlife Refuge (see Figure 11 on next page). The encroachment of pineapple into the corridor has led residents and environmentalists to criticize the state's neglect and drawn attention to the area's inhabitants' legal battle for legal land titles.

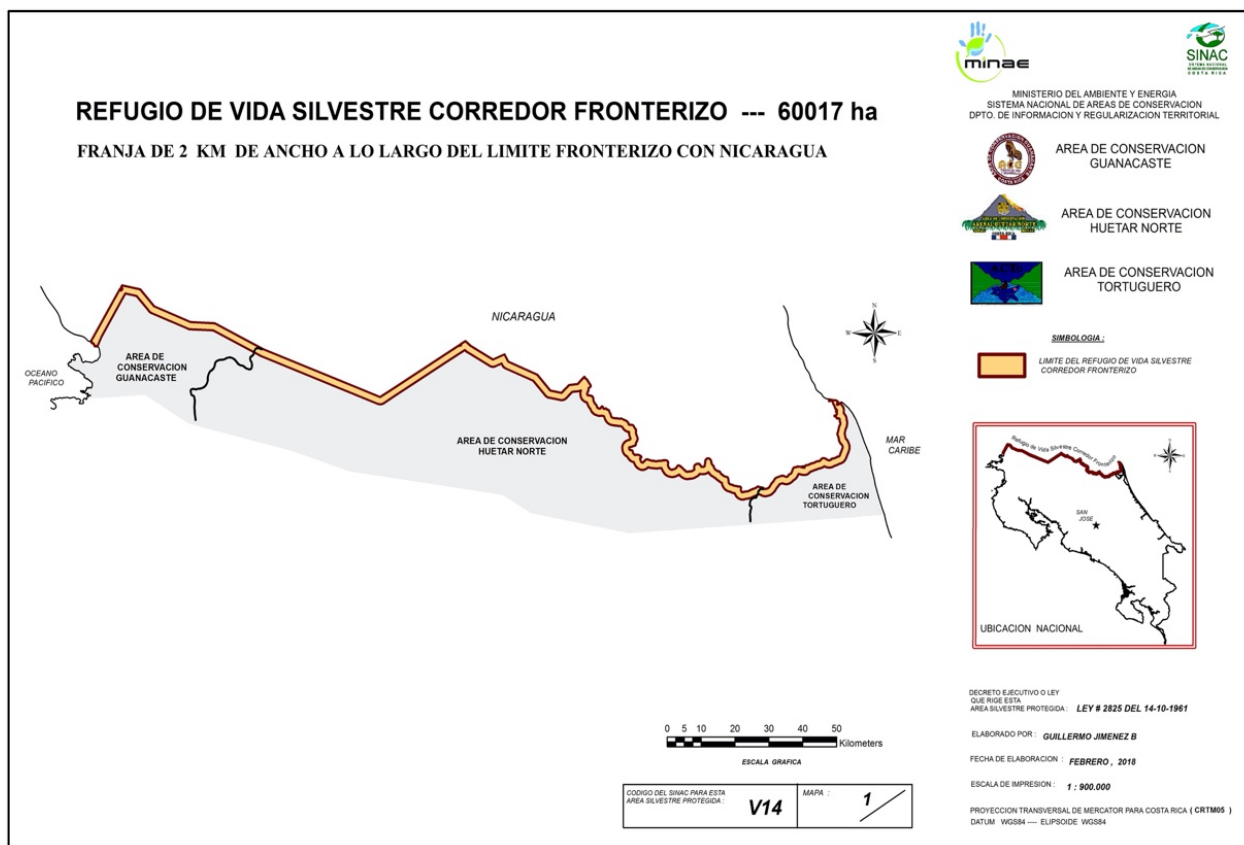


Figure 11. Map of the Border Corridor Wildlife Refuge.
 Source: sinac.org.go.cr/

⁵² No one I spoke to called the area by its full name, people tended to refer to it either as *la milla fronteriza*, or *el corredor fronterizo*. It was also called simply *la milla* or *el corredor transfronterizo*.

The border strip has only been a wildlife refuge since 1994, but the legal demarcation of the northern border corridor as inalienable state land dates to a century earlier. Legislative Decree No. 21, passed on June 22, 1888, gave special protection to the “*terrenos baldíos*,” or unoccupied lands, of the northern border region. The original political purpose of demarcating and assigning a special designation to this strip of land related to the prospect of the construction of an interoceanic canal along the Río San Juan in Nicaragua, which seemed very likely at the time. The law recognized the special value of the area and ensured that the state would have control of the land and be able to profit from it if a canal were to be built. It also mentions the need to protect against possible false claims and land speculation from people within Costa Rica and foreigners attracted to the area by the construction of a canal. Rather than specifying an exact numeric distance, the law used references to natural landmarks such as rivers and volcanoes and ended with a bay to delimit the border territory under state control. While the canal was never built, the state maintained the status of the inalienable land along the border through a series of laws and changing justifications (MINAE 2007).

In 1926, another law was passed⁵³ that confirmed the border strip as state land and specified an exact distance: a strip of 200 meters from the border. This updated law emphasized the importance of protecting the “natural richness” of the area. Shortly after, in 1929, another law⁵⁴ extended the distance from the northern border under “*dominio público*,” or public domain, from 200 meters to eight kilometers, citing “fiscal purposes, reasons of national security, and the progress of the region.” The new law again mentions the prospect of the canal, which would “centuplicate the value of the land,” and warns, “we must avoid that these lands turn into latifundios or reserves of powerful foreigner syndicates who have their eye on the strategic

⁵³ Law no. 11 of October 22, 1926

⁵⁴ Law no. 149 passed on August 16, 1929

position of our territory or for its most fecund and valuable areas, for its waters and natural treasures.” The text of the law concludes that since the state is the owner of these lands, this ownership will ensure and protect the future of Costa Rica.

The distance of the special state border zone was reduced to its current two kilometers in 1939 with *la Ley de Terrenos Baldías*,⁵⁵ or the Law of Unoccupied Lands, which confirms again the inalienability of the border zone. In 1961, the Law of Lands and Colonization,⁵⁶ the same law that created *Instituto de Tierras y Colonización* (ITCO), or the Lands and Colonization Institute, the agency tasked with colonizing the remote frontier of *la zona norte*, stipulates that the two-kilometer strip of land all along the northern and southern borders⁵⁷ are inalienable zones and territory of the state. The land cannot be occupied, and no one can acquire land.

The next iteration of the land’s protection came in the form of a wildlife refuge, but some of the earlier laws already addressed the area’s natural features and richness. What all the laws have in common is the claim that keeping the border zone under state dominion serves the national interest. From 1961 to 1994, the corridor land was administered by ITCO, which in 1982 became the *Instituto de Desarrollo Agrario* (IDA), or the Institute of Agrarian Development,⁵⁸ the same state agency that gave land titles in the *zona norte* as part of the government’s plan to “recuperate the sovereignty” of the border region.

Despite the prohibition on settlement in the border strip, people nevertheless populated it, arriving from both Nicaragua and Costa Rica to settle their homes and farms there. Since the

⁵⁵ la Ley de Terrenos Baldías No. 3 January 10, 1939

⁵⁶ la Ley de Tierras y Colonización, No. 2825 de 14 de octubre de 1961.

⁵⁷ The *corredor fronterizo sur*, or southern border corridor, with Panama has not been as much of a political issue. It is not a wildlife refuge, and a more recent law allows inhabitants to have private land titles. People I spoke with said that this difference is due to the fact that Costa Rica has relatively good diplomatic relations with Panama.

⁵⁸ See Picado 2005 on this evolution and for further discussion on the role of these state institutions in the settlement and development of *la zona norte*. In 2012, IDA became INDER, *Instituto de Desarrollo Rural* (Institute of Rural Development), but the milla activists I spoke with tend to refer to IDA and ITCO since those are the agencies that distributed concessions.

region was isolated from the rest of Costa Rica, no state presence existed to enforce the corridor's inalienability and keep people away. With the creation of ITCO and the transfer of the land to ITCO, the state recognized that people had settled in the corridor and allowed residents to register their lands in the area, and granted those residents concessions—not private property titles but rather “concessions” with an ambiguous legal status. Despite these concessions, the land was still legally inalienable. A 1972 agreement between ITCO, the Ministry of Agriculture and Ranching (Ministerio de Agricultura y Ganadería or MAG), and the Costa Rican Institute of Tourism (Instituto Costarricense de Turismo or ICT)⁵⁹ authorized ITCO (today IDA) and ICT, with previous consultation of MAG, to grant leases in these areas, for agricultural and livestock, touristic, or recreation use. This agreement led to a series of concessions, and was in place until the 1990 forestry law ended it. The meaning and legitimacy of these various concessions has been at the forefront of the milla fronteriza residents' struggle.

In 1994, the state reinvented and rebranded the two-kilometer strip as a wildlife corridor and refuge,⁶⁰ declaring the area part of SI – A – PAZ, the transborder peace park formed in 1990 after the war and described in chapter 2. The land thus came under the direction of SINAC, *Sistema Nacional de Áreas de Conservación*, or National System of Conservation Areas. SINAC declared the *corredor fronterizo* a critical biological corridor that protects and provides connectivity for the unique flora, fauna, and wetland habitat of the border zone (and connects existing protected wetland areas such as Wildlife Refuge Caño Negro nearby in Los Chiles and Tortuguero Conservation Area in the Caribbean). Given the current issue of las piñeras

⁵⁹ Convenio 25 no. 51 March 20 1972.

⁶⁰ Corridors have been a popular conservation model in Costa Rica since the mid-1990s when the region-wide Mesoamerican Biological Corridor initiative popularized wildlife or green corridors as a cornerstone of conservation-development projects; suddenly a concept from ecology became a sustainable development model.

encroaching on the area, it is worth noting that the decree specifically mentions monoculture as a justification for the creation of the protected area:

Considering that the advance of commercial monocultures and illegal logging have reduced the forest area of the northern zone to critical levels, with the consequent detriment to wildlife habitat, the loss of biodiversity, the sedimentation of rivers and the advance of the process of erosion...⁶¹

Today, despite the area's legal status as inalienable land and a protected area with no settlement, an estimated 8,750 people inhabit the *corredor fronterizo* (others claim it is closer to 10,000), most of them farmers. There are at least forty-one communities within the 620 square kilometers that make up the corridor. While the designation of the corridor as a wildlife refuge paints the picture of the border as a remote jungle, on the ground, one sees many homes, pastures, chicken coops, and small farms right up against and sometimes crossing the *mojones* or border posts that mark the legal line of the border. Thousands of residents claim to hold deeds and titles, but they are not recognized as permanent land titles by the state. Without land titles, residents cannot take out loans and are not eligible for certain state services. For example, the installation of electricity and the provision of potable water do not extend into the *corredor fronterizo* since legally it is not supposed to be inhabited and is state-protected land.

Over the past two decades, an ongoing legal battle has ensued between residents of *la milla fronteriza* and the Costa Rican government. Inhabitants of various communities of the northern border strip have formed a committee, *El Comité Pro-Titulación del Corredor Fronterizo* (The Pro-titling Committee of the Border Corridor), to advocate for their legitimate and historical rights to the land and to demand legal land titles. On some occasions, state officials

⁶¹ Gobierno de Costa Rica. 1994. Decreto Ejecutivo no. 22962-MIRENEM. Declara Refugio Nacional de Vida Silvestre al corredor fronterizo conformado por los terrenos comprendidos a lo largo de la frontera con Nicaragua desde Punta Castilla en el Mar Caribe hasta Bahía Salinas en el Océano Pacífico. San José, Costa Rica.

have argued that the *corredor fronterizo* cannot be titled because it is a protected area; other times, officials say it is for reasons of “national security.” *El Comité Pro-Titulación* sustains that this latter argument is not valid, because populating the area best protects national security. In the words of one inhabitant, quoted in the newspaper *La Nación* (2013), “Those who today work these lands are those who can best look after them (*cuidarlos*) and safeguard the respect of national sovereignty. Furthermore, the government contradicts itself because it has closed several police control posts on the border.” Those who live on the border witness firsthand the government’s contradictory and uneven policies and discourses toward the border. Despite talk of protecting the border and national security, border residents know that state agencies largely fail or choose not to enforce the border at all (or do so selectively). The arrival of extractive projects to the border corridor, namely pineapple, has made residents’ struggle for legal recognition of the tenure and security of their lands more pressing.

Some milla residents have been organizing since the early 1990s, but their legal battle has intensified and increased in numbers since 2010, which is when the government started to propose displacing border communities, according to residents. Through long marches to the capital, collecting signatures, meetings with government officials, protests, and work on social media, milla residents have drawn support for their cause. Residents point to the Isla Calero conflict (see Introduction) to explain why the state suddenly began to raise the issue of displacing corridor residents. Amid this new conflict with Nicaragua, discourses of national security grew and gained new traction.

The most vocal milla residents, and those actively engaged in the legal struggle, tend to be those with Costa Rican citizenship and historical claims to the land (prior to the creation of the refuge in 1994), but the composition of corridor residents is diverse. There are Nicaraguans

with historical (though not legal) claims to the land, as well as Costa Ricans and Nicaraguans who are more recent arrivals. In news media and public debates over the issue, journalists and politicians sometimes represent residents as squatters, and at other times, distinguish between squatters (*precaristas*) and those who have been there longer. State officials sometimes also use the word “usurpers” to refer to residents of the corridor. One narrative that occasionally appears in the news is about the presence of campesinos in the protected area who illegally log and hunt and are referred to as “squatter invasions” or “*invasiones de precaristas*,” echoing the discourse of piñera invasions.

There have been multiple political proposals to title border corridor lands, but so far, none have been passed. At least two “technical studies” have been conducted by different state agencies to assess the socioeconomic and environmental reality of the area. The government’s stance on the *corredor fronterizo* has been inconsistent. Different state agencies have taken different approaches to the matter, resulting in confusion and frustration among residents. Representatives of the executive branch, for example, have demonstrated a commitment to meeting the needs and demands of border communities, evident in the periodic laws extending residents’ temporary concessions. SINAC has included the Pro-Titling Committee in the local management council of another wildlife refuge in the *zona norte*.⁶²

Other state agencies have at times demonstrated a more repressive approach to the problem, even criminalizing residents as “illegal occupants” (Alvarado and Martínez 2013). In 2014, the state environmental tribunal (*Tribunal Ambiental Administrativo*), an office within MINAE responsible for receiving and adjudicating environmental denouncements and ensuring

⁶² Chassot and Monge, Eds. 2006. Plan de Manejo del Refugio Nacional de Vida Silvestre Mixto Maquenque, 2006-2010. Ciudad Quesada, Costa Rica: MINAE-SINAC-ACAHN / Centro Científico Tropical.

that environmental laws and natural resource laws are complied with, ordered the eviction of the estimated 8,750 milla residents. The tribunal's decision was the result of a denouncement made by SINAC officials that residents were violating the Forestry Law by illegally deforesting in a protected area. SINAC also claimed that residents were illegally occupying an inalienable state territory and wildlife refuge. Following the 2014 order, a few incidents were reported of police officers arriving in border communities and attempting to demolish buildings. The attempted demolitions were successfully fought by locals, but caused outrage and further united milla residents, strengthening their political fight. Residents began organizing with the rallying cry, “*No al desalojo*,” no to eviction. Through their protests, residents and their allies successfully postponed the order. But the solution is only temporary, because residents have not yet secured what they seek: permanent land titles, which they argue are part of their full rights as Costa Rican citizens.

Acknowledging the absurdity of the tribunal's decision, one SINAC official publicly criticized the tribunal's mandate as a “total denial of social reality,” citing residents' longtime and historical inhabitation of the border corridor. The residents with whom I spoke expressed less concern about actually being evicted and displaced (few people thought this was likely, but publicly countering this possibility was an effective way to protest), and they were more worried about their lack of permanent land titles and thus their rights as citizens.

Milla frontera residents have organized several community committees all along the border to advocate for their rights and defend their land. Pedro, one longtime resident of *la milla frontera* and community leader of one of the committees, first introduced me to this issue. He told me how he and fellow residents of *la milla frontera* have been organizing to fight against eviction and dislocation, remain on their land, and push for *titulación* or legal land titling of the

corridor. One of their basic claims to the territory is historical, he explained: many families have lived there for generations, prior to the state making it a protected area in 1994, and some prior to the earlier laws, too. Many of them fled during the Contra War but returned once the conflict had ended. Many other inhabitants are relatively recent arrivals, and do not have this same historical claim to the land. Pedro's family, originally from Nicaragua, was one of the first to come to the region in the late 1800s. The area, he said, has been inhabited ever since, "My grandfather came in 1890 and started his farm. He died at the age of 96 on his farm when I was seven years old. My mother was born here, too, she's 86. They [the government] do not take facts like this into consideration." Like Pedro, many *milla* residents are originally from Nicaragua and maintain ties there.

Despite some residents' long histories with the land, their residence there is precarious without secure land titles. "We do not have rights," Pedro said, "It is like we are inactive or nonexistent. If I go to a bank right now and try and get a loan to work my parcel, they tell me that I cannot because I am inside the *línea fronteriza* and I am therefore *anulado*, canceled." "We were already here! We have been here for a long time. We are still here, and we are staying," he said resolutely. He and a few others told me that they would die before they left their land.

Due to *milla* residents' fierce opposition and activism, and because no alternate solution has been found, a series of agreements have been made and renegotiated in which residents' occupation of the corridor is permissible temporarily. The government continues to extend the supposedly temporary residence of corridor inhabitants. In 2018, the Costa Rican congress passed Law 9577, which declares "protection for the occupants or inhabitants of 'special zones'" for another three years, and entails suspending evictions in maritime and land borders and areas

of natural patrimony.⁶³ The law was passed in large part due to protests of residents organized in defense of *la milla fronteriza*. These temporary arrangements perpetuate *milla* residents' precarious position, and do not secure what residents seek: permanent and secure land titles.

Border residents point to the fact that despite the state's "talk," the wildlife refuge does not actually function as such, and is a refuge in name only. Pedro, for example, repeated in exasperation that the *corredor* was not a conservation area.⁶⁴ "*Reserva ambiental?* (Environmental reserve) Look around!" he told me one day. "What do you see? Farms, houses, chickens, and cows!" That same day, we had gone to see the *mojón* (boundary marker) that sits on his property, which he and everyone else in the community seems to ignore. He also mentioned that he and other people are willing to respect certain environmental laws and regulations, "to care for the water, wetlands, and species"—as long as they get their land titles. Some residents claim that the government insisted on the protected area status as a way to get money and maintain their global image as an environmentalist country.

A former legislator and government representative who now works pro bono as a legal adviser for residents of the *corredor fronterizo* and has helped communities organize and attract publicity for the "*no al desalojo*" campaign, also countered the state's environmental argument for displacing people from the corridor. "I am an environmentalist," she said, "but before we protect the environment, we must protect our people. People see the name 'refuge' and think there are mountains. There are no mountains! What there is, is people, communities." For her, the *corredor fronterizo* debate is first and foremost about social justice and human rights.

⁶³ La Asamblea Legislativa de la Republica de Costa Rica. Ley no. 9577. Protección a los ocupantes de zonas clasificadas como especiales. July 20, 2018.

⁶⁴ The way people talked about *el corredor fronterizo* reminded me a lot of the way people in Papaturro, Nicaragua talked about Los Guatuzos not being a refuge, see chapter 2.

Rather than simply repeating institutional narratives of protection and pretending that the corredor was a fully intact protected area, officials from SINAC, the state institution responsible for protecting the border wildlife refuge, expressed a range of opinions—and some of them, to my surprise, spoke with candor—regarding the problem of la milla fronteriza. In one conversation, Carol, a SINAC employee who used to work in the border region, framed the problem as political and having to do with Costa Rica’s changing relationship to Nicaragua:

La milla fronteriza is a legal matter more than environmental. Depending on the political situation and relationship with Nicaragua at any given time, the distance keeps changing. It has a long complicated legal history, and on top of all these legal layers they decided to put another one of wildlife refuge! On top of everything!

She added that in addition to the political and legal complexity, the state does not have the capacity to protect such a large area. This point was echoed by many people with whom I spoke, including government officials, border residents, and environmentalists.

So, who does guard the border wildlife refuge? One afternoon I located the only SINAC office of the *Refugio Nacional Vida Silvestre Corredor Fronterizo* in the outskirts of Los Chiles. It was a little blue building located on a rocky, dusty, rough, gravel road off the main highway that connects Los Chiles to Nicaragua. I met with Nicolas, the resident *guardaparque* or park ranger who works and lives there for two weeks at a time. His job entails “control and protection” of the refuge and office work, which consists primarily of handling denouncements (*denuncias*), either violations he sees firsthand or those reported to him by others. “We do get some reports,” he said, “But one problem in this zone in particular is that over half of the population is Nicaraguan, and most are not legal residents, so they do not denounce anything to SINAC or to anyone.”

Outside of the office, he goes on field visits and patrols the protected area, usually by land in a SINAC truck, and occasionally by boat when he goes with the police to patrol the

rivers. They look for people violating regulations—illegal construction, cutting of trees, installations of water and electricity, and hunting. Nicolas noted that according to the law, only three activities are permitted in a national wildlife refuge: research; environmental education; and “control and protection.” In theory, everything else is considered a violation. But he is the only person who works at the office, and there is just this one office for the whole refuge. Each of the three conservation areas that touches the border—Tortugero; Arenal Huetar-Norte; and Guanacaste, from east to west—is responsible for protecting their piece of the border corridor, but the other two do not have a designated office or patrol for the border corridor.

Nicolas is thus the sole person responsible for protecting the whole corridor. “There were more of us before,” he said, “at some point there was a team of four but as budgets got cut, park rangers were reduced and now it is down to just me...I could not possibly do all the work it would take to actually protect this area.” He added, “I do not even have the truck all the time.” Management of the area, or “control and protection” per the SINAC lingo, seemed minimal.

He was surprisingly frank about what he described as “the big contradiction of the *corredor fronterizo*,” namely that declaring it a wildlife refuge denied that there are many people already living inside the corridor who have been living there a long time.⁶⁵ Rather than approaching the border corridor in the present tense as a wildlife refuge, as I expected from a SINAC official, Nicolas took me through the longer history of *el corredor fronterizo*. He pulled out a piece of paper and wrote me a rough timeline of events, beginning with the state’s original demarcation of the land as alienable in 1888, which he explained had to do with the canal.

“The area is natural patrimony of the state,” but, he admitted, “it is a legal contradiction and problem.” Nicolas added, “and because the state does not have the capacity to protect or

⁶⁵ According to Costa Rican law, one can claim a property title after ten years of inhabiting a piece of land. However, this law does not apply to this two-kilometer corridor.

guard such a large area there continue to be more people settling there, farming, building.” Even if this area could legally be inhabited, he pointed out, most people who live there are neither citizens nor legal residents and have no legal claim to the land at all because they are Nicaraguan. Grappling out loud with the refuge’s obvious contradictions, he conveyed a sense of uncertainty and discomfort about his “control and protection” responsibilities.

State agencies have sometimes framed their efforts to evict border residents as a matter of environmental protection. But the question of what exactly the border corridor protects biologically and ecologically was often lost in the sea of debate and confusion regarding the wildlife border refuge. Even Nicolas, whose job it is to protect said flora, fauna, and habitat, gave only brief attention to the topic, but his quick answer was wetlands. The area is full of wetlands, he said, and “wetland conservation is unique because to a certain extent, wetlands conserve themselves because of their nature. But with enough meddling, they become extinct.” This remark echoed what I had heard across the border in Papaturro (chapter 2) about how wetlands, in resisting easy deforestation and building-over, are “self-conservationists.” He also mentioned that the border corridor is even harder to patrol due to the presence of so many wetlands, which are either seasonally or permanently flooded and unpassable.

Both Carol and Nicolas talked about how the Costa Rican state’s construction of the border road, or *la trocha* as it came to be known, has facilitated and significantly expanded settlement in the border strip by creating new openings in the border and making it easier for people to enter from Nicaragua, thus making environmental problems on the border worse. La trocha was built by emergency decree⁶⁶ in 2011 by the Costa Rican government, then led by

⁶⁶ Talking about the road being constructed as part of a declared state of emergency, one SINAC official who worked near the border at the time told me: “La trocha was not an emergency, it was planned. They declared it an emergency, but the government had a plan prior. When we [SINAC] first saw the tractors breaking ground, we made

Laura Chinchilla, in response to Nicaraguan military presence on Isla Calero (see Introduction). The government declared the road necessary to protect national sovereignty and security. Accusing Nicaragua of environmental damages before the International Court and seeking 6.6 million dollars in compensation, the Costa Rican state strategically framed the Isla Calero incident as not just a breach of territorial sovereignty but also an environmental cause, due to concern for vulnerable border wetland habitats and protected areas including the *Corredor Fronterizo*.

According to Nicolas, the construction of *la trocha* has led to an increase in “environmental crimes” in the protected area such as illegal logging, building, and hunting. Intended to better safeguard the border, *la trocha* ultimately led to a more porous and less secure border by providing more access to Nicas and Ticos both to land within the *milla fronteriza* and more generally to cross back and forth across the border. Defenders of *la milla fronteriza* capitalized on the contradiction that although the state is pushing for people to move out of the *corredor fronterizo* in the name of conservation and environmental protection, they recently built a road within the territory, resulting in environmental damages and making it easier for people to settle there.

Today, *la trocha*—a 160-kilometer dirt and gravel road that begins in Los Chiles and traces the eastern border alongside the San Juan River for 120 kilometers out to Delta, a small settlement close to the Caribbean coast—remains unfinished. Entire sections are incomplete and there are bridges missing. In its unfinished state, *la trocha* is sometimes called “the road to nowhere” (Mata 2013). As an incomplete and contradictory project, *la trocha* remains a potent symbol of what residents see as the pointlessness of border conflicts between Costa Rica and

an environmental denouncement, citing a violation of use of the *corredor fronterizo*, not knowing who it was. It was not until after that we learned it was the national government who had contracted the company to build a road.”

Nicaragua, another artifact of central governments' fighting and attempts to fix in the still fluid borderlands.⁶⁷

“What happens after Law 9577 expires in 36 months? Will the government actually evict people then?” I asked Nicolas. “No,” he said. Pulling out a large binder packed with documents, he began to explain that SINAC had been working on a new management plan for the protected area. The new plan, completed in 2013 and based on census and field data, revises the zoning of the wildlife refuge. The draft is complete, but the plan has yet to be approved. Researchers collected data on where and how much area is covered by crops, people and homes, and commercial and agricultural activities, and what areas of forest and wetland remain intact. He turned to a series of maps that show precisely where inside the corridor human settlements are located, and how “intensive” or developed they are, graded on a scale with a different color for each category: lightly inhabited, moderate, and heavy. The purpose of the study was to understand the actual current state of the *corredor* to gain a better understanding of the economic, social, and environmental situation of inhabitants and then present this study to the legislative assembly to create a law so that inhabitants have a “different legal standing and more access to state benefits.” SINAC is also currently conducting a technical study, funded by the Minister of Planning (*Ministerio de Planificación*), to determine the current socioenvironmental and socioeconomic situation of the territory. Costa Rican law requires a technical study to make any modification to a protected area, and thus the study would be the first necessary step to grant residents legal land titles.

⁶⁷ In 2018, the central government announced that it was planning to “turn over management “of Ruta 1856 Juan Rafael Mora Porras to local municipalities. A public uproar followed the announcement; border residents resented the central government for shifting the burden of finishing the project to local governments. I happened to be sitting on a rocking chair next to Eduardo, in a small town called Delta where *la trocha* ends, while we listened to this announcement on the television news. “This was a disaster created by the central government!” Ed exclaimed, “It is outrageous for them to try and hand off this mess to us now. Local municipalities do not have the resources to complete this road. And not all communities want the road finished.”

In addition to the injustice and logistical difficulty of relocating nearly 10,000 people, the other trouble is the question of what would grow in the absence of the people and communities that currently inhabit the border corridor. According to Pedro, it would not be flora and fauna: “They say that we have to move from here. But if we leave, what will grow in our country is narcotrafficking.” Many people echoed this assertion: that if border residents leave, narcotrafficking will skyrocket. In this view, *milla fronteriza* residents—far from disrupters and squatters harming the land, as they are sometimes portrayed by the government—are rather protectors and guardians of the vulnerable border territory. On one part of the border to the east, around the infamous Isla Calero, one man remarked, “if they remove all those people, who will care for the island and the border? The *campesinos* take better care of it than SINAC does. If they leave, narcos will be the owners of that island!” Milla residents who are struggling for legal recognition strategically adopt this discourse and role of protector of the border, arguing that national security and the defense of national sovereignty are best protected by their presence.

Piña in the corredor fronterizo and the state in la zona norte

In 2011, the Environmental Tribunal started investigating *denuncias* regarding the invasion of pineapple into Caño Negro Wildlife Refuge (also part of SI – A – PAZ) and the riverbanks of the Río Frío, which runs through the reserve. Reports from environmental groups confirmed that pineapple was causing extensive damage to the area, which is considered Costa Rica’s most important wetland. In the years that followed, more and more *denuncias* and reports piled up of pineapple companies extending into various protected wetland areas in *la zona norte*. In 2017, local communities and environmental groups found that piñeras were encroaching on the *corredor fronterizo*. The invasion of piñeras into protected areas has caused an uproar among environmentalists and some residents. Milla residents point to the pineapple’s encroachment on

the border as evidence of the fact that, as they have been saying for decades, “*la milla* is not a wildlife refuge.”

While Nicolas expressed ambivalence towards inhabitants of *el corredor fronterizo* and SINAC’s relationship to them, he took up the issue of pineapple in the *corredor* with conviction. At the time that we spoke in 2018, he had recently submitted *denuncias* to the environmental tribunal against several companies whose pineapple fields go right up to the border without any permits. “The companies would never be granted the permits because this agricultural activity—*any* agricultural activity!—is prohibited in this zone,” he exclaimed. He implied that at least smallholder campesinos have the justification of producing to survive, whereas pineapple companies are producing strictly for export and profit. He pulled out and opened a thick binder which contained all the documents regarding the environmental denouncements against pineapple companies: photographs, detailed maps and aerial photographs that show locations of the illegal pineapple operations, graphs, charts, letters, testimonies. “There are at least 400 hectares of pineapple inside the corridor,” he said. The formal complaints Nicolas submitted denounce not only the illegal presence of the pineapple companies in the corridor, but also their wetland drainage and water and wetland contamination practices. As of 2021, according to Nicolas the formal tribunals were still in process and have not yet issued a ruling. But, he said, one of the companies that SINAC denounced for being in the *corredor fronterizo* had started to withdraw from the area.

Critics point to the presence of pineapple in protected areas as another sign of the state’s neglect of *la zona norte* and its proclaimed commitment to the environment. While the state continues to publicly promote a sustainable development model based on conservation and eco-tourism, the expansion of *la frontera piñera* in the northern reaches of the country tells a

different story of a development model based on corporate agriculture, exports, and extraction. The role of the state in the expansion of pineapple, which I describe below, has thus put a spotlight on its role in the lives of residents, lands, and waters of *la zona norte* on the one hand, and its commitment to the environment on the other. A widespread critique is that the Costa Rican government is turning a blind eye to what is happening and does not police pineapple plantations because it is corrupt and the industry serves the interests of elites. Critics decry, for example, the Costa Rican government's failure to enforce the permit-granting process that is supposed to regulate pineapple companies. New pineapple operations are supposed to go through a detailed permit application process which involves approval by three state agencies—SETENA (*Secretaría Técnica Nacional Ambiental*), a water concession from the Department of Water Resources, and the given municipality. But many *piñeras* do not have the proper permits, and not only those in protected areas.

In addition to permits, other laws and regulations are in place for the management, monitoring, and auditing of *piñeras*, but they are weak in part because there is a lack of resources, capacity, and coordination between agencies to properly implement those policies. For instance, as Campos (2020) describes, one step of the permit granting process involves a soil-use permit from the local municipality where the *piñera* will operate, but local municipalities, especially those of *la zona norte* such as Los Chiles, do not have the formal mechanisms in place to actually regulate and administrate their territory. They also tend to be short staffed and have limited resources. Moreover, some local government officials report being pressured and even threatened by *piñeras* to approve permits (Campos 2020), attesting to the incredible economic and political power of pineapple companies.

Alexa Campos (2020), building on anthropological theories of the state as a project made up of a constellation of people, practices, processes and agencies with different sometimes contradictory interests and agendas, rather than a unitary and coherent entity (Nadasdy 2003), shows how the Costa Rican state has assumed a dual role in the expansion of pineapple, at once enterprising and passive. She analyzes the “actions and omissions” (or presence and selective absences) of the Costa Rican state in pineapple expansion, showing how the state created the legal, political, and economic structures and conditions to facilitate and promote the development of agroindustry and attract foreign investment and companies. This contributes to the socioenvironmental conflicts resulting from piñeras’ expansion through selective omissions, institutional gaps, and failure to enforce regulatory mechanisms. The question arises: are government agencies capable of regulating the industry even if they wanted to? Signs of state weakness are present, such as Nicolas’s comment that SINAC is not capable of protecting or managing the *corredor fronterizo*.

Pineapple companies’ encroachment on protected areas, and the *corredor fronterizo* in particular, as well as people’s response to this encroachment, are another example of how protected areas do not necessarily strengthen government control over lands, peoples, and borders, as most scholarly analysis suggests. Instead, they can have the opposite effect by highlighting a government’s lack of control and a region’s marginalization. Different groups of people mobilize the abandonment and neglect of protected areas in different ways and for different purposes. Environmentalists mobilize them to critique the state’s failure to protect the environment and comply with its own environmental protection laws. Despite people’s mixed feelings about their local protected areas, residents take up the cause of protecting such areas to contest what they consider as harmful agricultural development, in this case the invasion of

piñeras into their lands, wetlands, and waters. Border residents cite neglected wildlife refuges in their pursuit of legal land titles. Thus, rather than helping to secure the state's territorial limits, protected areas further destabilize an already contested and unstable border region.

Border making and unmaking

The agricultural and economic transformation of *la zona norte* over the past four decades, the conflict over the *corredor fronterizo*, and the debates over the frontera piñera with which I began this chapter, illustrate the dynamic between border making—including state attempts to fix and define the border, corporate agriculture projects profiting from the border, and the reproduction of inequality—and the constant unmaking of the border by migrants, water flows, activists and protests, economic policies, and border residents. Rather than being in tension with one another, these two sets of processes reflect the inherent instability and contradictory nature of borders.

The expansion of the pineapple frontier, highlights this dynamic and helps explain the relative openness of the border that I have described in other chapters. Neoliberal economic policies require open borders for the free flow of capital, goods, and labor—even though the necessity of the flow of migrant labor is often denied. Despite state discourse of enforcing and securing the border, Costa Rica's pineapple industry clearly demonstrates that economically, it is not in the interest of either state to close or to actually enforce the length of the border. Having a relatively open border serves the economic interests of both countries: Nicaraguans need employment opportunities that are nonexistent within Nicaragua, and Costa Rica's economy depends on Nicaraguan labor. Thus, the openness of the border and its structural inequality are intertwined.

Border-making projects, as I have shown, are sometimes contradictory, unfinished, and incomplete, just as is the case for the states that implement them. In some cases, border-making efforts, rather than successfully incorporating a territory and its people, have the opposite, unintended consequence, as inhabitants of the borderlands and waters contest or otherwise take advantage of border interventions. In examining these dynamics, this chapter, following the others, has joined the inquiry of other scholars in looking at how, when, and why borders become meaningful or politically useful to different groups, including people who live on or near them (Sahlins 1989; Reeves 2014; Lim 2017). These include *milla fronteriza* residents protesting for their land and their in-between way of life, the border residents protesting the expansion of pineapple and the industry's contamination of water, and the many Nicas who took advantage of the new road, built to secure Costa Rican state territory, to settle on the border.

For many of these people, their daily lives are not contained by the border, but rather entail fluid movement back and forth across it. They simultaneously disrupt the border and the state's notions of what it is and how to maintain it, and they reproduce it by making claims on the state, having expectations of the state to improve their lives, keep companies in check, and protect ground and surface waters from contamination. Meanwhile, the Río Frío continues to flow, through Los Chiles and across the border.

Conclusion

In May 2020, the Costa Rican government announced it was closing the border with Nicaragua for public health reasons to prevent the spread of COVID-19. It is unclear to what degree the border actually closed, but at least in some previously unpatrolled sections, Costa Rican border patrol and police agents began enforcing border closure. The closure disrupted local communities on both sides of the border. Some of the Nicaraguans I met during fieldwork and mention in this dissertation reported not being able to enter Costa Rica for months: a restriction to their mobility they had never faced.

An investigative media report called “*La frontera dibujada*,” or the drawn border, described how the Costa Rican government’s response to Covid, together with the stark differences between the two countries’ public health systems, drew the border between Costa Rica and Nicaragua in a way that it had never been drawn, thus dividing border communities in unprecedented ways (Cruz 2020). The report describes the border in much the way I describe it in this dissertation: as an imaginary, invisible line that runs through pastures, mountains, wetlands, scrub-brush, houses, and people’s lives. It also describes how border residents live between one country and another.¹ I have not been back to Central America since I left in 2018, but from what friends have shared, the border has for the most part re-opened. Covid thus fits within the framework of this dissertation of the making and unmaking of the border, which highlights how the border is continually made, remade, and unmade, in constant negotiation and process.

As Brenda Chalfin (2010:85) observes, there is a tendency within border studies to assume the border zone as a space of resistance to or breakdown of state authority. Based on my

¹ In addition to impacting border communities, tighter border closures due to COVID also shed light on Costa Rica’s dependency on Nicaraguan migrant laborers in urban centers like San José.

experience on the Nicaragua/Costa Rica border, I can see why; in many ways the border is a space of resistance. And yet, as she and other scholars have observed, we must not make that assumption and instead look more carefully at border dynamics. Borderland residents also participate in the making of the border (Sahlins 1989) and are crucial to the reproduction of the state's territorial limits (Chalfin 2010). Reeves refers to this as "the role of ordinary people in borderwork" (2014:238). Thus even in cases where border residents subvert the border in different ways, they very often simultaneously transgress and make the border, and in doing so both undermine and reinforce the state (Sahlins 1989; Chalfin 2010; Lim 2017).

In this dissertation I have tried to highlight the ways that local people both disrupt and enact in border in their daily movements and crossborder mobilizations. I have suggested that water and wetlands play a role in the fluidity and porousness of the border, both materially and in terms of border residents' relationships to water and the way that they mobilize water and environmental issues more broadly in their political activism. Some local residents' loyalties and understanding of the land and waterscape continues to transcend the border and this is reflected in their political organizing over water issues.

Examining water conflicts in borderlands shows how the state-centric concept of "natural patrimony" or natural heritage of the state unravels on the border, precisely the place where such a delineation is potentially most critical. While states make claims to national natures, border residents, local communities, activists, and scientists both contest these claims by framing rivers and wetlands as local, shared, binational, or borderless, and at the same time, invest these claims with meaning by holding state agencies accountable to protect those natures in marginal border territories.

Conservation plays an interesting role in this. The protected areas on the Nicaragua/Costa Rica border are part of a transborder peace park intended to protect wetlands across the border and promote cooperation between national governments. The preceding chapters have examined how protected areas, rather than necessarily facilitating state control over a territory as critical theories of conservation often assume, can showcase state weakness, abandonment, and neglect. I have shown how border residents mobilize these abandoned protected areas in their political movements, in ways that both disrupt and reinscribe the border.

Geographer John Agnew (2008:176) observes that borders “trap thinking about and acting in the world in territorial terms.” Borders, he continues, “limit the exercise of intellect, imagination, and political will. The challenge is to think and then act beyond their present limitations.” How do we not let borders trap our thinking? How do we study borders in ways that do not reinscribe division and difference? How do we move beyond the logic of the border? I do not claim to have done this in this dissertation, but they are critical questions. But perhaps water, rivers, and wetlands are a generative place to think through these questions.

At the end of the day, the border is a place where people live and where Nicas and Ticos coexist. In 2018, as I was wrapping up my fieldwork I spent a few days on Isla Calero, the site of the 2010 territorial dispute that had caused such a ruckus for border residents. Eduardo, who is involved in the struggle for land titles in the *la milla fronteriza*, offered to introduce me to some resident farmers on the island. We took a boat from Delta, and as we crossed the Colorado River, which is a tributary of the Río San Juan, I looked back and saw three Costa Rican flags flying high above the water. We docked on the shore of the island, and started walking towards the small farm of Cesar, an old friend of Eduardo's. Cesar had been irritated by the Isla Calero conflict. He and the others with whom I spoke saw the event in the historical context of the way

this border zone, its land, wetlands, waters, and people have been caught up in problem after problem of national and foreign governments. Some of them remembered Edén Pastora from his presence on the border back in the 1980s during the Contra War.

But their crossborder lives continued. “Look,” Cesar said as he gestured out toward the Río Colorado, “The river you see in front of you, you can see that this is the Río San Juan. It is only different in name, Colorado. It is the same river. But a treaty decided differently.” Toward the end of our conversation, looking out at the river, he said: “For me there is no border.” *Para mi no hay frontera.*

BIBLIOGRAPHY

- Abbas, C. 2020. "Conflict, Change and Social Relations in a Costa Rican Border Village: An Ethnographic Study of Delta, Costa Rica." Doctoral dissertation, Teachers College.
- Abu-Lughod, D. 2000. "Failed Buy out: Land Rights for Contra Veterans in Postwar Nicaragua." *Latin American Perspectives* 27 (3): 32-62.
- Acuña-González, G. 2004. Diagnóstico, situación y condiciones de agroindustria piñera en Costa Rica: Los casos de la producción piñera en las regiones Atlántica y Pacífico Sur. Informe Final. Asociación de Servicios de Promoción Laboral. San José, Costa Rica: ASEPROLACR.
- Agamben, G. 1998. *Homo Sacer: Sovereign Power and Bare Life*. Stanford: Stanford University Press.
- Alvarado, J. 2014. "Tribunal Ambiental denuncia incompetencia institucional por afectación en Laguna Las Camelias." *CRHoy*, November 22, 2014. <https://archivo.crhoy.com/tribunal-ambiental-denuncia-incompetencia-institucional-por-afectacion-en-laguna-las-camelias/nacionales/>
- Alvarez, RR. 1995. "The Mexican-US border: the making of an anthropology of borderlands." *Annual Review of Anthropology* 24: 447-70.
- Alvarez, C. J. 2019. *Border land, border water: a history of construction on the US-Mexico divide*. Austin: University of Texas Press.
- Amigos de la Tierra/España. 1996. *Plan de manejo del Refugio de Vida Silvestre Los Guatuzos: Propuesta de una estrategia para el desarrollo sostenible en el humedal*. Editors García R. and G.A. Ruíz. Managua: MARENA/SI-A-PAZ - Proyecto Río San Juan-Amigos de la Tierra España.
- Anand, N. 2011. "Pressure: The politechnics of water supply in Mumbai." *Cultural Anthropology* 26(4): 542-564.
———2012. "Municipal Disconnect: On Abject Water and its Urban Infrastructures." *Ethnography* 13(4): 487-509.
- Anderson, J. 1983. "U.S. and Israel Aim for Pinch on Nicaragua." *Washington Post*, February 14, 1983.
- Anzaldúa, G. 1987 [2012]. *Borderlands/la frontera: The New Mestiza*. San Francisco: Aunt Lute Books.
———1993. "Chicana artists: Exploring Nepantla, el lugar de la frontera." *NACLA Report on the Americas* 27(1): 37-45.
- Aravena, J. 2005. *La expansión piñera en Costa Rica: La realidad de los perdedores en la agro-*

- industria exportadora de la piña*. San José, Costa Rica: Publicación de COECO Ceiba/Amigos de la Tierra Costa Rica.
- Arenas, Á., Mordt, M., and Ríos, F. 2002. *Territorio distante: el encuentro entre la gente y la naturaleza*. Heredia, Costa Rica: División Educología de la UNA.
- Arias Campos, L. D., Retana Céspedes, J. M., Torres Sandí, D., and Peña Rivera, L. 2018. "Los nuevos frutos de oro. Aparato productivo de piña y naranja en la Zona Norte, Costa Rica (1974-2015)." *Revista Rupturas* 8(1): 93-121.
- Augelli, J. P. 1987. "Costa Rica's Frontier Legacy." *The Geographic Review* 77(1): 1-16.
- Ballestero, A. 2019. "The anthropology of water." *Annual Review of Anthropology* 48: 405-421.
- Baltodano, M. L. 2017. *Entrega de un País: Expediente Jurídico de la concesión canalera en Nicaragua*. Managua, Nicaragua: Fundación Popol Na.
- Bakker, K. 2012. "Water: Political, biopolitical, material." *Social Studies of Science* 42(4):616-623.
- Bakker, K., and Bridge, G. 2006. "Material worlds? Resource geographies and the matter of nature'." *Progress in human geography* 30(1): 5-27.
- Barboza, G. 2005. "Sostenibilidad del Pastoreo en un Humedal Tropical: El Caso del Parque Nacional Palo Verde, Costa Rica." Masters thesis, Universidad Nacional de Costa Rica.
———2011. "Bondades ecológicas del búfalo de agua: camino hacia la certificación." *Tecnología en Marcha* 24 (5): 82-88
- Barboza, G., Diaz, S., Hernandez, E., Picado, O. 2016. *Proyecto de investigación: Pastoreo controlado con búfalos, en la rehabilitación del Refugio de Vida Silvestre Laguna Las Camelias*. San José de Upala, Alajuela, Costa Rica.
- Barnes, J. 2014. *Cultivating the Nile: The everyday politics of water in Egypt*. Durham, N.C.: Duke University Press.
———2012. "Pumping possibility: Agricultural expansion through desert reclamation in Egypt." *Social Studies of Science* 42(4): 517–538.
- Barquet, K. 2015. "‘Yes to Peace’? Environmental peacemaking and transboundary conservation in Central America." *Geoforum* 63: 14-24.
- Barraza, D., Jansen, K., van Wendel de Joode, B., and Wesseling, C. 2013. "Social movements and risk perception: unions, churches, pesticides and bananas in Costa Rica." *International Journal of Occupational and Environmental Health* 19(1): 11-21.
- Basso, K. H. 1996. *Wisdom sits in places: Landscape and language among the Western Apache*. Albuquerque: University of New Mexico Press.

- Baviskar, A., Ed. 2007. *Waterscapes. The cultural politics of a natural resource*. Delhi, India: Permanent Black.
- Belli, G. 2002. *The Country under my Skin: A Memoir of Love and War*. New York: A. A. Knopf.
- Björkman, L. 2015. *Pipe politics, contested waters*. Durham, N.C.: Duke University Press.
- Boelens, R, Hoogesteger, J., Swyngedouw, E., Vos, J., and Wester, P.. 2016. “Hydrosocial territories: a political ecology perspective.” *Water International* 41(1):1-14.
- Brannstrom, C. 1995. “Almost a canal: visions of interoceanic communication across southern Nicaragua.” *Ecumene* 2(1): 65-87.
- Brown, W. 2010. *Walled states, waning sovereignty*. Princeton, NJ: Princeton University Press.
- Budds, J. 2008. “Whose scarcity? The hydrosocial cycle and the changing waterscape of La Ligua river basin, Chile.” In *Contentious geographies: Environmental knowledge, meaning, scale*, edited by M. K. Goodman, M. Boykoff, and K. Evered, Kyle, 59–68. Farnham, England: Ashgate.
- Burlingame, L. J. 2002. “Evolution of the Organization for Tropical studies.” *Revista de biología tropical* 50(2): 439-472.
- Burrell, J. L. and Moodie, E. 2015. “The Post–Cold War Anthropology of Central America.” *Annual Review of Anthropology* 44: 381-400.
- Büscher, B. 2013. *Transforming the frontier: Peace Parks and the Politics of neoliberal conservation in Southern Africa*. Durham, N.C.: Duke University Press.
- Büscher, B., Dressler, W., and Fletcher, R. 2014. *Nature Inc.: environmental conservation in the neoliberal age*. Tucson: University of Arizona Press.
- Cabezas, O. 1986. *Fire from the Mountain: The Making of a Sandinista*. New York: Plume.
- Calero, M. 2015. “Árboles gastan millones en luz.” *La Prensa*, November 4, 2015.
<https://www.laprensa.com.ni/2015/11/04/nacionales/1930418-Árboles-gastan-millones-en-luz>
- Campbell, L. M. 2002. “Conservation narratives in Costa Rica: conflict and co-existence.” *Development and Change* 33(1): 29-56.
- Campos, V. 2014. “El Canal pone en riesgo nuestra capacidad de adaptación al cambio Climático.” *Envio* no. 393. <https://www.envio.org.ni/articulo/4948>
- Campos, A. O. 2020. “Acciones y omisiones del Estado costarricense en la expansión piñera: El

- caso de la Zona Norte-Norte de Costa Rica.” *Anuario del Centro de Investigación y Estudios Políticos* 11: 22-55.
- Cardenal, E. 1995. *The Doubtful Strait/El estrecho dudoso*. Bloomington and Indianapolis: Indiana University Press.
- Cardoso, F. H. and Faletto, E. 1979. *Dependency and development in Latin America*. Berkeley: University of California Press.
- Carse, A. 2012. “Nature as infrastructure: Making and managing the Panama Canal watershed.” *Social Studies of Science* 42(4): 539-563.
 ———2014. *Beyond the Big Ditch: Politics, Ecology and Infrastructure at the Panama Canal*. Cambridge: MIT Press.
- Castro, R., E. Monge, C. Rocha, and H. Rodríguez. 2007. “La Gestión del Recurso Hídrico.” *Revista Biocenosis* 20(1-2): 36-45.
- Cattelino JR. 2015. “The cultural politics of water in the Everglades and beyond.” Transcript of the Lewis Henry Morgan Lecture given on October 14, 2015. *HAU* 5(3): 235–50.
- Chalfin, B. 2010. *Neoliberal frontiers: An Ethnography of Sovereignty in West Africa*. Chicago: University of Chicago Press.
- Claborn, J. 2018. “Sawmills and Swamps: Ecological Collectives in Zora Neale Hurston’s Mules and Men and Their Eyes Were Watching God.” In *Civil Rights and the Environment in African-American Literature, 1895-1941*, 111-132. London: Bloomsbury Publishing.
- Clayton, L. A. 1987. “The Nicaragua canal in the nineteenth century: prelude to American empire in the Caribbean.” *Journal of Latin American Studies* 19(2): 323-352.
- Comisión Centroamericana de Ambiente y Desarrollo (CCAD). 2002. *Política Centroamericana para la Conservación y Uso Racional de los Humedales*. San José, Costa Rica: CCAD.
- Cons J. 2017. “Global flooding.” *Anthropology Now* 9(3): 47–52.
- Cortés Ramos, A. 2011. “Los imaginarios diferenciados de Costa Rica y Nicaragua sobre el Río San Juan.” *Pensamiento Propio* julio-diciembre 34: 165-200.
- Cowardin, L.M., V. Carter, F.C Golet, and E.T. LaRoe. 1979. *Classification of wetlands and deepwater habitats of the United States*. United States Fish and Wildlife Service FWS/OBS-79/31. Washington, D.C, USA.
- Craib, R. 2004. *Cartographic Mexico: a history of state fixations and fugitive landscapes*. Durham, N.C: Duke University Press.
- Cronon, W. 1991. *Nature's metropolis: Chicago and the Great West*. New York: WW Norton

- and Company.
 ———1996. “The trouble with wilderness: or, getting back to the wrong nature.” *Environmental history* 1(1): 7-28.
- Cronon, W., Ed.. 1996. *Uncommon ground: Rethinking the human place in nature*. New York: WW Norton and Company.
- Cruz, M. F. 2020. “How COVID-19 drew the border between Costa Rica and Nicaragua.” *La Voz de Guanacaste*, June 26, 2020. <https://vozdeguanacaste.com/en/how-covid-19-drew-the-border-between-costa-rica-and-nicaragua/>
- Cruz-Granja, A., 1999. “Presencia de Residuos de Agroquímicos e Hidrocarburos en el Refugio de Vida Silvestre “Los Guatuzos,” Departamento Río San Juan-Nicaragua.” Universidad Nacional Autónoma de Nicaragua-Centro para la Investigación de los Recursos Acuáticos de Nicaragua, Managua. Available at: <https://repositorio.unan.edu.ni/2533/1/312.pdf>
- Cuadra, P. 1979. *Songs of Cifar and the Sweet Sea*. New York: Columbia University Press.
- Cunningham, H. 2012. “Permeabilities, ecology, and geopolitical boundaries.” In *A companion to border studies*, edited by T. Wilson and H. Donnan, 371-386. Oxford, UK: Wiley Blackwell.
- Cunningham, H., and Heyman, J. 2004. “Introduction: mobilities and enclosures at borders.” *Identities: Global Studies in Culture and Power* 11: 289-302.
- da Silva, J. M. C., and Wheeler, E. 2017. “Ecosystems as infrastructure.” *Perspectives in ecology and conservation* 15(1): 32-35.
- De León, J. 2015. *The land of open graves: Living and dying on the migrant trail*. Berkeley: University of California Press.
- Deere, C. D. and Marchetti, P. 1985. “The peasantry and the development of Sandinista agrarian policy, 1979-1984.” *Latin American Research Review* 20(3): 75-109.
- Devine, J. 2014. “Counterinsurgency ecotourism in Guatemala’s Maya Biosphere Reserve.” *Environment and Planning D: Society and Space* 32: 984-1001.
- Dilley, R. 2010. “Reflections on knowledge practices and the problem of ignorance.” *Journal of the Royal Anthropological Institute* 16: 176-192.
- Dilley, R., and Kirsch, T. G., Eds. 2015. *Regimes of ignorance: anthropological perspectives on the production and reproduction of non-knowledge*. New York: Berghahn.
- Edgeworth, M. 2014. “On the agency of rivers.” *Archaeological Dialogues* 21(2): 157-159.

- Ellison, A. M. 2004. "Wetlands of central America." *Wetlands Ecology and Management* 12(1): 3-55.
- Edelman, M. 1998. "Un genocidio en Centroamérica: hule, esclavos, nacionalismo y la destrucción de los indígenas guatusos-malecus." *Mesoamérica* 19(36): 539-591.
 ———1999. *Peasants against globalization: rural social movements in Costa Rica*. Palo Alto, CA: Stanford University Press.
- Esch, S. S. 2008. "¿El río San Juan como 'mausoleo de modernidades' de Nicaragua? La negociación literaria del significado de modernidad a las orillas del río." *L'Ordinaire des Amériques* (211): 145-164.
- Escobar, A. 1995. *Encountering development: The Making and Unmaking of the Third World*. Princeton, N.J.: Princeton University Press.
- Esgueva, A. 2007. *Las fronteras de Nicaragua y Costa Rica en los documentos históricos*. Managua: Instituto de Historia de Nicaragua y Centroamérica.
- Evans, S. 1999. *The Green Republic: A Conservation history of Costa Rica*. Austin: University of Texas Press.
- Faber, D. 1999. "La Liberación del Medio Ambiente: The Rise and Fall of Revolutionary Ecology in Nicaragua, 1979-1999." *Capitalism, Nature, Socialism* 10(1): 45-80.
- Frajman, E. 2012. "The people, not the movement: Opposition to CAFTA in Costa Rica, 2002–2007." *Latin American Perspectives* 39(6): 116-132.
- Ferguson, J. 1990. *The Anti-Politics Machine: "Development", Depolitization, and Bureaucratic Power in Lesotho*. New York: Cambridge University Press.
- Fletcher, R., Dowd-Uribe, B., and Aistara, G. A., Eds. 2020. *The Ecolaboratory: Environmental Governance and Economic Development in Costa Rica*. Tucson: University of Arizona Press.
- Flynn, D. K. 1997. "We are the border": identity, exchange, and the state along the Bénin-Nigeria border." *American Ethnologist* 24(2): 311-330.
- Fisher, J. 2019. "Nicaragua's Buen Vivir: a strategy for tourism development?" *Journal of Sustainable Tourism* 27(4): 452-471.
- Folkman, D. 1972. *The Nicaragua Route*. Salt Lake City: University of Utah Press.
- Fonseca, J. C. S. 1999. "Indígenas y neohispanos en las áreas fronterizas de Costa Rica (1800-1860)." *Anuario de Estudios Centroamericanos* 73-102.

- Frajman, E. 2012. "The people, not the movement: Opposition to CAFTA in Costa Rica, 2002–2007." *Latin American Perspectives* 39(6): 116-132.
- Francis, H. 2012. "¡Que se rinda tu madre! Leonel Rugama and Nicaragua's Changing Politics of Memory." *Journal of Latin American Cultural Studies* 21(2): 235-252.
 ———2020. *A Nicaraguan Exceptionalism?: Debating the Legacy of the Sandinista Revolution*. London: University of London Press.
- Frank, A. G. 1966 "The Development of Underdevelopment." *Monthly Review* XVII (September): 17-31.
 ———1967. *Capitalism and Underdevelopment in Latin America: Historical Studies of Chile and Brazil*. New York: Monthly Review Press.
- Galison, P. 2004. "Removing Knowledge." *Critical Inquiry* 31 (1): 229–43.
- Galt, R. E. 2014. *Food systems in an unequal world: Pesticides, vegetables, and agrarian capitalism in Costa Rica*. Tucson: University of Arizona Press.
 ———2008. "Pesticides in export and domestic agriculture: Reconsidering market orientation and pesticide use in Costa Rica." *Geoforum* 39(3): 1378-1392.
- Gideon, J. 1998. "The politics of social service provision through NGOs: A study of Latin America." *Bulletin of Latin American Research* 17(3): 303-321.
- Giro, P. O. 1994. "The Interoceanic Canal and Boundaries in Central America: The Case of the San Juan River." In *The Americas : World Boundaries* Volume 4, edited by Pascal O. Giro, 84-109. London: Routledge.
 ———1997. Border regions, integration, and transborder conservation initiatives in Central America. In *Borders and Border Regions in Europe and North America*, edited by Paul Ganster, 333-354. San Diego, C.A.: Institute for Regional Studies of the Californias and San Diego State University Press.
- Giro, P. O. and Granados, C. 1997. "La cooperación transfronteriza y los nuevos paradigmas de la integración centroamericana." In *Las fronteras del Istmo. Fronteras y sociedades entre el Sur de México y América Central*, edited by Phillipe Bovin, 289-310. México City: Centro de Investigaciones y Estudios Superiores en Antropología Social.
- Giro, P.O. and Nietschmann, B. Q. 1992. "The Río San Juan: The geopolitics and ecopolitics of the Río San Juan." *National Geographic Society Research and Exploration* 8(1):52-63.
- Gobat, M. 2005. *Confronting the American Dream: Nicaragua Under U.S. Imperial Rule*. Durham, N.C.: Duke University Press.
- Goldade, K. 2011. "Babies and belonging: reproduction, citizenship, and undocumented Nicaraguan labor migrant women in Costa Rica." *Medical Anthropology* 30(5): 545-568.

- González Centeno, A. 2016. "Salvador Montenegro: Es un Suicidio Colectivo." *La Prensa*, April 17, 2016. <https://www.laprensa.com.ni/2016/04/17/suplemento/la-prensa-domingo/2018809-2018809>
- González Gamboa, V. 2019. *La Piña en Costa Rica: ubicando conflictos ambientales en áreas silvestres protegidas y ecosistemas de Humedal: anexo metodológico*. Informe Estado de la Nación en Desarrollo Humano Sostenible.
- Gooren, H. 2010. "Ortega for president: The religious rebirth of Sandinismo in Nicaragua." *Revista Europea de Estudios Latinoamericanos y del Caribe/European Review of Latin American and Caribbean Studies* 47-63.
- Granados, C. 1985. "Hacia una definición de Centroamérica: El peso de los factores geopolíticos." *Anuario de Estudios Centroamericanos* 11(1):59-78.
- Granados, C., Brenes, A., and Cubero, L. P. 2005. "Los riesgos de la reconversión productiva en las fronteras centroamericanas: el caso de la Zona Norte de Costa Rica." *Anuario de Estudios Centroamericanos* 93-113.
- Grandia, L. 2007. "Between bolivar and bureaucracy: the Mesoamerican biological corridor." *Conservation and Society* 5(4): 478-503.
- Grandin, G. 2011. *The last colonial massacre: Latin America in the Cold War*. Chicago: University of Chicago Press.
 ———2000. *The blood of Guatemala: A history of race and nation*. Durham, N.C.: Duke University Press.
- Green, S. 2009. "Lines, traces and tidemarks: reflections on forms of borderli-ness." East-Bord Working Paper No. 1.
- Griffin, P. J., and Ali, S. H. 2014. "Managing transboundary wetlands: the Ramsar Convention as a means of ecological diplomacy." *Journal of Environmental Studies and Sciences* 4(3): 230-239.
- Gutiérrez Arguedas, L. P. 2007. Más allá de las fronteras: Accesibilidad de niños, niñas y adolescentes nicaragüenses a la educación primaria en Costa Rica. *Anuario de estudios centroamericanos* 33/34: 153-181.
- Gutiérrez, A. and Granados, C. 2020. "Nacionalismo, frontera, y excepcionalismo verde en Costa Rica. *Anuario de estudios centroamericanos* 46: 1-28.
- Guzmán-Arias, I. and Calvo-Alvarado, J. 2013. "Planning and Development of Costa Rica Water Resources: Current Status and Perspectives." *Tecnología en Marcha* 26(4): 52-63.
- Hale, C. R. 1994. *Resistance and contradiction: Miskitu Indians and the Nicaraguan state, 1894-1987*. Stanford: Stanford University Press.

- Hämäläinen, P., and Truett, S. 2011. "On borderlands." *The Journal of American History* 98(2): 338-361.
- Hammond, J. L. 1989. "Resettlement and rural development in Nicaragua." *Monthly Review* 41(5): 22-35.
- Hele, Karl, ed. 2008. *Lines Drawn Upon the Water: The First Nations Experience in the Great Lakes Borderlands*. Waterloo: Wilfrid Laurier Press.
- Helmreich, S. 2011. "Nature/culture/seawater." *American anthropologist* 113(1): 132-144.
- Henighan, S. 2014. *Sandino's Nation: Ernesto Cardenal and Sergio Ramírez Writing Nicaragua, 1940-2012*. Montreal: McGill-Queen's University Press.
- Herrera, R. 2014. "How much longer will the country's water last?" *Envío* 397.
- Hettiarachchi, M., Morrison, T. H., and McAlpine, C. 2015. "Forty-three years of Ramsar and urban wetlands." *Global Environmental Change* 32: 57-66.
- Heyman, Josiah, ed. 1999. *States and Illegal Practices*. Oxford: Berg.
- Heyman, J. M., and Campbell, H. 2009. "The anthropology of global flows: A critical reading of Appadurai's Disjuncture and Difference in the Global Cultural Economy." *Anthropological Theory* 9(2): 131-148.
- Hill, R. 1948. "The Nicaraguan Canal Idea to 1913." *The Hispanic American Historical Review* 28(2): 197-211.
- Holland, M. M., Whigham, D. F., and Gopal, B., eds. 1990. "The characteristics of wetland Ecotones," in *The ecology and management of aquatic-terrestrial ecotones*, edited by R.J. Naiman and H. Décamps, 171-198. Paris: Parthenon Publishing.
- Huete-Perez, J., R.L. Gil, M. Ortega Hegg, Eds. 2015. *El Canal Interoceánico por Nicaragua: Aportes al Debate*. Managua: Academia de Ciencias de Nicaragua.
- Huete-Perez, J., A. Mayer, P.J. Alvarez. 2015. "Rethink the Nicaragua Canal." *Science* 347: 355.
- Hurston, Z.N. [1934] 2008. *Jonah's Gourd Vine*. New York: HarperCollins.
 ——— [1937] 1990. *Their Eyes Were Watching God*. New York: Harper and Row.
- i Puig, S. M. 2010. "The adaptation of the FSLN: Daniel Ortega's leadership and democracy in Nicaragua." *Latin American Politics and Society* 52(4): 79-106.
- Igoe, J., and Brockington, D. 2007. "Neoliberal conservation: a brief introduction." *Conservation and society* 5(4): 432-449.

- Isla, A. 2015. *The "greening" of Costa Rica: Women, peasants, indigenous peoples, and the remaking of nature*. Toronto: University of Toronto Press.
- Jacoby, K. 2014. *Crimes against nature: Squatters, Poachers, Thieves, and the Hidden History of American Conservation*. Berkeley: University of California Press.
- Jacobs, F. 2012. "The First Google Maps War." *New York Times*, February 28, 2012. <https://opinionator.blogs.nytimes.com/2012/02/28/the-first-google-maps-war/>
- Jansen, S. 2013. "People and things in the ethnography of borders: materialising the division of Sarajevo." *Social Anthropology* 21(1): 23-37.
- Jerez, F.G. 2007. "Un país con mucha agua y con mucha sed." *Envio* no. 302. May 2007.
- Jiménez, J. 1999. "The Wetlands of Central America: their ecological and economic importance." *WWF Central America* 2(1): 3-5.
- Jiménez, H. 1986. "La controversia de límites entre Costa Rica y Nicaragua. El Laudo Cleveland y los derechos canaleros 1821-1903." *Anuario De Estudios Centroamericanos* 12(2): 45-58.
- Karpouzoglou, T., and Vij, S. 2017. "Waterscape: a perspective for understanding the contested geography of water." *Wiley Interdisciplinary Reviews: Water* 4(3): 1-5.
- Kim, E. 2014. "The Flight of Cranes: Militarized Nature at the North Korea–South Korea Border." In *Asian Environments: Connections across Borders, Landscapes, and Times*, edited by Ursula Münster, Shiho Satsuka, and Gunnel Cederlöf, 65–70. RCC Perspectives 3.
- 2016. "Toward an anthropology of landmines: rogue infrastructure and military waste in the Korean DMZ." *Cultural Anthropology* 31(2): 162-187.
- 2017. "Invasive Others and Significant Others: Strange Kinship and Interspecies Ethics near the Korean Demilitarized Zone." *Social Research: An International Quarterly* 84 (1): 203-220.
- Kimpworth, K. 2008. "Abortion, Antifeminism, and the Return of Daniel Ortega In Nicaragua, Leftist Politics?" *Latin American Perspectives* 163 (35): 122-136.
- King, M. W., Pastora, M. A. G., Salazar, M. C., and Rodriguez, C. M. 2016. "Environmental governance and peacebuilding in post-conflict Central America: Lessons from the Central American Commission for Environment and Development." In *Governance, Natural resources, and Post-conflict Peacebuilding*, edited by Bruch, C., Muffett, C., Nichols, S. S., 777-802. London: Earthscan.
- Kinloch, F. 2015. *El imaginario del canal y la nación cosmopolita*. Managua: INCHA-UCA.
- Klytchnikova, Irina I.; Cestti, Rita E.; Escurra, Jorge Jose; Pagiola, Stefano P.; Klytchnikova,

- Irina I.; Cestti, Rita E.; Escurra, Jorge Jose; Pagiola, Stefano P.. 2013. *Policy and investment priorities to reduce environmental degradation of the Lake Nicaragua watershed (Cocibolca) : addressing key environmental challenges (English)*. Latin America and Caribbean Region Environment and Water Resources occasional paper series. Washington DC: World Bank.
- Krause, F. 2016. "Rivers, borders, and the flows of the landscape." *The Dynamics of Cultural Borders*, edited by A. Kannike, M. Tasa, 24-45. Tartu: University of Tartu Press.
- La Nación. 2013. "Habitantes de la milla fronteriza norte de Costa Rica solo aceptarán la escritura." *Nación*, September 15, 2013. <https://www.nacion.com/el-pais/habitantes-de-la-milla-fronteriza-norte-de-costa-rica-solo-aceptaran-la-escritura/ZB3SWGSPRJCNPFN SUYKADWXWGRU/story/>
- Larson, E. M. 1993. "Nicaraguan refugees in Costa Rica from 1980-1993." *Yearbook Conference of Latin Americanist Geographers (Conference of Latin Americanist Geographers)* 19: 67-79.
- Lawrence, F. 2010. "Bitter fruit: The truth about supermarket pineapple." *The Guardian*, October 1, 2010. <https://www.theguardian.com/business/2010/oct/02/truth-about-pineapple-production>.
- León, A. 2015. *Desarrollo geográfico Desigual en Costa Rica: el ajuste estructural visto desde la Región Huetar Norte (1985-2005)*. San José: Universidad de Costa Rica.
- Li, F. 2015. *Unearthing Conflict: Corporate Mining, Activism, and Expertise in Peru*. Durham, N.C: Duke University Press
 ———2016. "In defense of water: modern mining, grassroots movements, and corporate strategies in Peru." *The Journal of Latin American and Caribbean Anthropology* 21(1): 109-129.
- Li, T. M. 2007. *The will to improve: Governmentality, development, and the practice of politics*. Durham, N.C.: Duke University Press.
- Lim, J. 2017. *Porous borders: multiracial migrations and the law in the US-Mexico borderlands*. Chapel Hill: UNC Press Books.
- Linton, J., and Budds, J. 2014. "The hydrosocial cycle: Defining and mobilizing a relational-dialectical approach to water." *Geoforum* 57: 170-180.
- Llaguno, J. J., Solano, S. M., Espeleta, A. L. G., and Alfaro, P. B. 2014. "Políticas y conflictos socio ambientales: El caso de la Tenencia de la tierra y los monocultivos En el Caribe de Costa Rica (2006-2012)." *Revista de Ciencias Sociales (Cr)* 3(145): 81-98.
- Locke, S., and Ovando, C. J. 2012. "Nicaraguans and the Educational Glass Ceiling in Costa Rica: the stranger in our midst." *Power and Education* 4(2): 127-138

- Lopez, I. 2018. "Nicaragua lawmakers block operation of NGOs critical of President Ortega." *Reuters*, December 13, 2018. <https://www.reuters.com/article/us-nicaragua-protests/nicaragua-lawmakers-block-operation-of-ngos-critical-of-president-ortega-idUSKBN1OC310>
- Lunstrum, E. 2014. "Green militarization: anti-poaching efforts and the spatial contours of Kruger National Park." *Annals of the Association of American Geographers* 104 (4): 816-832.
- Maglianesi-Sandoz, M. A. 2013. "Desarrollo de las piñeras en Costa Rica y sus impactos sobre ecosistemas naturales y agro-urbanos." *Biocenosis* 27(1-2):62-70.
- Martínez Hernández Mejía, I. 2018. "Reflexiones Sobre La Caravana Migrante." *Análisis Plural* 5: 231–239. 1er sem. ITESO.
- Martínez Sánchez, G. 2019. "La Piñera nos Contaminó el Agua: Mujer, trabajo y Vida Cotidiana en Comunidades Afectadas por la Expansión Piñera en Costa Rica." *Revista Latino Americana de Geografía e Género* 10 (2): 3- 23.
- Mata, E. 2013. "Tres días en la trocha... El camino que lleva a ningún lugar." *La Nación*, January 27, 2013. <https://www.nacion.com/archivo/tres-dias-en-la-trocha-el-camino-que-lleva-a-ningun-lugar/2NTF46KDMNAFVDJBTUA23RMCYU/story/>
- Matthews, G.V.T. 1993. *The Ramsar Convention on Wetlands: Its History and Development*. Gland, Switzerland: Ramsar Convention Bureau.
- Mathews, A. 2011. *Instituting nature: authority, expertise, and power in Mexican forests*. Cambridge: MIT Press.
- McGoey, L. 2012. "Strategic unknowns: Towards a sociology of ignorance." *Economy and society* 41(1): 1-16.
- McGuire, R. H. 2013. "Steel walls and picket fences: Rematerializing the US–Mexican border in ambos Nogales." *American Anthropologist* 115(3): 466-480.
- Meierotto, L. 2014. "A Disciplined Space: The Co-Evolution of Conservation and Militarization on the US-Mexico Border." *Anthropological Quarterly* 87(3): 637-664.
- Mendez, J. B. 2005. *From the Revolution to the Maquiladoras: Gender, Labor, and Globalization in Nicaragua*. Durham, N.C.: Duke University Press.
- Merriam-Webster.com Dictionary, s.v. "conservation," accessed July 7, 2021. <https://www.merriam-webster.com/dictionary/conservation>.

- Mezzadra, S., and Neilson, B. 2013. *Border as Method, or, the Multiplication of Labor*. Durham, N.C.: Duke University Press.
- MINAE. 2007. *Informe Técnico: Solicitud de Reducción del Área del Refugio Nacional de Vida Silvestre Corredor Fronterizo. Comisión Caso Tablillas*.
- Montes de Oca Lugo, J. and J.S. Calvo, eds. 2006. “Los humedales transfronterizos de Nicaragua y Costa Rica: documento informativo.” San José, Costa Rica: UICN. Oficina Regional para Mesoamérica.
- Montenegro, S. 2013. “El árbol de la mentira.” *Confidencial*, December 17, 2013. <https://confidencial.com.ni/archivos/articulo/15340/el-arbol-de-la-mentira>
- Montenegro-Guillén, S. 2003. “Lake Cocibolca/Nicaragua.” *Lake Basin Management Initiative Experience and Lessons Learned Brief USAID. World Bank, Washington, 12*.
- Mora, E. 2012. “El Nuevo Camino Fronterizo: Ambiente y Contexto Político.” *Ambientico* 221.
- Mora, M.J. 2021. “Costa Rica has welcoming policies for migrants, but Nicaraguans face subtle barriers.” <https://www.migrationpolicy.org/article/costa-rica-nicaragua-migrants-subtle-barriers>
- Morales, A. 1997. *Los territorios del cuajipal*. San José, Costa Rica: FLACSO.
 ———1997a. *Las fronteras desbordadas*. Cuaderno de Ciencias Sociales No. 104. San José, Costa Rica: FLACSO.
- Morales, A., and Castro, C. 1999. *Inmigración laboral nicaragüense en Costa Rica*. San José, Costa Rica: FLACSO.
 ———2002. *Redes transfronterizas: sociedad, empleo y migración entre Nicaragua y Costa Rica*. San José, Costa Rica: FLACSO.
- Muehlmann, S. 2013. *Where the river ends: contested indigeneity in the Mexican Colorado delta*. Durham, N.C.: Duke University Press.
- Nadasdy, P. 2017. *Sovereignty's Entailments: First Nation State Formation in the Yukon*. Toronto: University of Toronto Press.
 ———2003. *Hunters and bureaucrats: power, knowledge, and aboriginal-state relations in the southwest Yukon*. Vancouver: University of British Columbia press.
- Natvig, A. 2013. “Discursos sobre la disputa en torno a la isla calero en Nicaragua y Costa Rica.” *Anuario de Estudios Centroamericanos*: 289-310.
- Obregón, C. 1993. *El Río San Juan. En la lucha por las potencias (1821-1860)*. San José: EUNED.

- Ogden, L. 2011. *Swamplife: people, gators, and mangroves entangled in the Everglades*. Minneapolis: University of Minnesota Press.
- Orlove, B. and Caton, S. C. 2010. "Water sustainability: Anthropological approaches and prospects." *Annual Review of Anthropology* 39: 401-415.
- Otterstrom, S. M. 2008. "Nicaraguan migrants in Costa Rica during the 1990s: Gender differences and geographic expansion." *Journal of Latin American Geography* 7(2):7-33.
- Paasi, A. 1998. "Boundaries as social processes: Territoriality in the world of flows." *Geopolitics* 3(1): 69-88.
- Pasos, R., Girot, P., Larforge M., Torrealba P., Kaimowitz, D. 1994. *El Ultimo Despale: La Frontera Agrícola Centroamericana*. San José: Fundación para el Desarrollo Económico y Social para Centroamérica (FUNDESCA).
- Pasos Arguello, L. 1994. "El Río San Juan es Río Nicaragüense." *Revista Conservadora*. <https://sajurin.enriquebolanos.org/docs/1352.pdf>
- Peluso, N. L. 1993. "Coercing conservation?: The politics of state resource control." *Global environmental change* 3(2): 199-217.
- Picado, W. 2005. "Políticas del IDA-ITCO en la Costa Rica rural: El caso de la región Huetar Norte," In Samper, M. *Trayectorias y disyuntivas del agro en la Zona Norte de Costa Rica*, 159-183. San José: Instituto de Investigaciones Sociales, Universidad de Costa Rica.
- Popelka, S. J., and Smith, L. C. 2020. "Rivers as political borders: a new subnational geospatial dataset." *Water Policy* 22(3): 293-312.
- Quesada, M. E. 2014. Disputa fronteriza y valor geoestratégico del Río San Juan: Nicaragua y Costa Rica. *Cuadernos de Geografía* 23(2): 69-83.
- Rabella, J. 2013. *Aproximación a la historia del Río San Juan (1500-1995)*. Managua: Hispamer.
- Rademacher, A. 2011. *Reigning the river: Urban Ecologies and Political Transformation in Kathmandu*. Durham, N.C.: Duke University Press.
- Raffles, H. 2002. *In Amazonia: A Natural History*. Princeton: Princeton University Press.
- Ramirez, S. 2011. *Adiós muchachos: A Memoir of the Sandinista Revolution*. Durham, N.C.: Duke University Press.
- RAMSAR. 2011. *Informe Formal. Misión Ramsar de Asesoramiento No. 69: Humedal de Importancia Internacional Caribe Noreste, Costa Rica*. https://www.ramsar.org/sites/default/files/documents/library/ram69-costarica_sp_2011.pdf

- Ramutsindela, M., Ed. 2014. *Cartographies of nature: How nature conservation animates borders*. Cambridge Scholars Publishing.
- 2015. “Natured borders.” *Geoforum* 61: 135-137.
- Reeves, M. 2014. *Border work: Spatial lives of the state in rural Central Asia*. Ithaca: Cornell University Press.
- Robbins, P. 2012. *Political Ecology: A Critical Introduction*. Oxford: Blackwell Publishing.
- Rocha, J. L. 2005. “El Río San Juan: Caudal de conflictos, reserva de nacionalismos.” *Revista Envío* 284.
- 2008. “Identidades binacionales en la frontera líquida, ¿ciudadanías binacionales?” *L'Ordinaire des Amériques* 211: 121-144.
- 2009. “Bi-National Identities, but Also Bi-National Citizenships?” *Journal of poverty* 13(3): 276-292.
- Rocha, O. J., & Braker, E. 2021. “The Organization for Tropical Studies: History, accomplishments, future directions in education and research, with an emphasis in the contributions to the study of plant reproductive ecology and genetics in tropical ecosystems.” *Biological Conservation* 253: 1-12.
- Rodríguez, T., and Prunier, D. 2020. “Extractivismo agrícola, frontera y fuerza de trabajo migrante: La expansión del monocultivo de piña en Costa Rica.” *Frontera Norte* 32 (5): 1-23.
- Rodríguez, T., Obando, A., and Acuña, M. 2018. “Entender el extractivismo en regiones fronterizas. Monocultivos y despojo en las fronteras de Costa Rica.” *Sociedad y ambiente* (17): 165-200.
- Rojas, M. M., and López, G. R. 2012. “Fronteras: muros imaginarios, muros materiales y muros virtuales. Los Chiles, en la frontera norte de Costa Rica. Un estudio de caso.” *ÍSTMICA. Revista de la Facultad de Filosofía y Letras* 15: 39-51.
- Romano, S. 2012. “From Protest to Proposal: The Contentious Politics of the Nicaraguan Anti-Water Privatisation Social Movement.” *Bulletin of Latin American Research* 31(4): 499-514.
- Romero, E. and C. Torrez García. 2018. “Ejército de Nicaragua declara zona de seguridad de la Reserva Indio Maíz.” *La Prensa*, April 10, 2018.
<https://www.laprensa.com.ni/2018/04/10/nacionales/2402048-gobierno-declara-zona-de-seguridad-reserva-indio-maiz>
- Rudall, J. 2016. “Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua); Construction of a Road in Costa Rica Along the San Juan River (Nicaragua v. Costa Rica).” *The American Journal of International Law* 110(2): 320-326.

- Ruiz, A. 2019. "Alba Forestal y la Deforestación." *La Prensa*, May 28, 2019.
<https://www.laprensa.com.ni/2019/05/28/opinion/2553804-alba-forestal-y-la-deforestacion>
- Sahlins, P. 1989. *Boundaries: The Making of France and Spain in the Pyrenees*. Berkeley: University of California Press.
- Sajaloli, B. 1996. "Les zones humides: une nouvelle vitrine pour l'environnement (Wetlands: a new showcase for environment)." *Bulletin de l'Association de Géographes Français* 73(2): 132-144.
- Salazar, O. 2008. "Plantaciones de piña en Costa Rica contra la sostenibilidad ecológica y social." *Ambientico (Costa Rica)* 177: 11-12.
- Samper, M. 2005. *Trayectorias y disyuntivas del agro en la Zona Norte de Costa Rica*. Instituto de Investigaciones Sociales, Universidad de Costa Rica.
- Sandbrook, R., M. Edelman, P. Heller, and J. Teichman. 2007. "Costa Rica: Resilience of a Classic Social Democracy." In *Social Democracy in the Global Periphery: Origins, Challenges, Prospects*. Pp. 93–122. Cambridge: Cambridge University Press.
- Sandner, G., and Nuhn, H. 1966. *Estudio geográfico regional de la zona norte de Costa Rica*. San José, Costa Rica: ITCO.
- Sandoval García, C. 2004. "Contested discourses on national identity: Representing Nicaraguan immigration to Costa Rica." *Bulletin of Latin American Research* 23(4): 434-445.
 ———2004a. *Threatening others: Nicaraguans and the formation of national identities in Costa Rica*. Athens: Ohio University Press.
 ———2012. "De Calero a La trocha. La nueva disputa limítrofe entre los gobiernos de Costa Rica y Nicaragua (2010-2012)." *Anuario de Estudios Centroamericanos* 38: 177-192.
- Saxton, D. I. 2015. "Strawberry fields as extreme environments: The ecobiopolitics of farmworker health." *Medical Anthropology* 34(2): 166-183.
- Schramm, K. 2011. "Introduction: Landscapes of violence: Memory and sacred space." *History and Memory* 23(1): 5-22.
- Serra Vázquez, L. 2016. "El movimiento social nicaragüense por la defensa de la tierra, el agua y la soberanía." *Encuentro* 104: 38-52.
- Sibaja, L. F.. 1974. *Nuestro límite con Nicaragua. Estudio Histórico*. San José: Talleres Gráficos Don Bosco.

- Silvetti, F., and Cáceres, D. M. 2015. "La expansión de monocultivos de exportación en Argentina y Costa Rica: Conflictos socioambientales y lucha campesina por la justicia ambiental." *Mundo Agrario* 16(32).
- Simpson, A. 2014. *Mohawk Interruptus: Political Life Across the Borders of Settler States*. Durham, N.C.: Duke University Press.
- Sojo, C. 2010. *Igualitarios: la construcción social de la desigualdad en Costa Rica*. San José, Costa Rica: PNUD.
- Solano, F. 2002. "Estudio de la Hidrodinámica sedimentológica en el Humedal de Las Camelias, Refugio Nacional de Vida Silvestre Las Camelias, Area de Conservación Arenal - Huetar Norte, Upala."
- Solano, F. and Salas, D. 2011. "Procesos hidrodinámicos de sedimentación en sistemas lagunares continentales en la Zona Norte de Costa Rica." *Revista Geográfica de América Central* 2, 1-22.
- Solórzano, G.P. 2018. "Upala: Paisajes Reconstruidos por Sus Antiguos Inmigrantes." *Revista de Historia* 78: 33-62.
- Soto, F. 2011. *Ventanas en la memoria: recuerdos de la revolución en la frontera agrícola*. Managua: UCA Publicaciones.
- Spence, M. D. 1999. *Dispossessing the wilderness: Indian removal and the making of the national parks*. Oxford: Oxford University Press.
- Stewart, A. Y. 2001. "Poached modernity: Parks, people and politics in Nicaragua, 1975–2000." Doctoral Dissertation, Rutgers University.
- Sultana F. 2011. "Suffering for water, suffering from water: emotional geographies of resource access, control and conflict." *Geoforum* 42:163–172.
- Sundberg, J. 2011. "Diabolic Caminos in the desert and cat fights on the Rio: a posthumanist political ecology of boundary enforcement in the United States–Mexico borderlands." *Annals of the Association of American Geographers* 101(2): 318-336.
- Sundberg, J., and Kaserman, B. 2007. "Cactus carvings and desert defecations: embodying representations of border crossings in protected areas on the Mexico—US border." *Environment and Planning D: Society and Space* 25(4): 727-744.
- Swyngedouw, E. 1999. "Modernity and hybridity: nature, regeneracionismo, and the production of the Spanish waterscape, 1890–1930." *Annals of the association of American Geographers*, 89(3), 443-465.

- Torres-Rivas, E. 2007. "Nicaragua: el retorno del sandinismo transfigurado." *Nueva Sociedad* 207(8).
- Tsing, A. 2005. *Friction: An ethnography of global connection*. Princeton: Princeton University Press.
- 2015. *The mushroom at the end of the world*. Princeton: Princeton University Press.
- Vásquez, R. C. 2005. "El territorio histórico maleku de Costa Rica." *Revista reflexiones* 84(1): 71-85.
- Vásquez, G.V. 2009. *La Posesión en la Franjas Fronterizas y su Afectación Estatal e Implicaciones de la Densificación de la Frontera Norte de Costa Rica*. Tesis Facultad de Derecho, Universidad de Costa Rica
- Vileisis, A.1999. *Discovering the unknown landscape: a history of America's wetlands*. Washington, D.C.: Island Press.
- Villena, S. 2016. "Espectros de Sandino en la política nicaragüense (una interrogación)." *Istmo. Revista virtual de estudios literarios y culturales centroamericanos* 33: Julio–Diciembre.
- 2018. "Nicaragua 2018: La Sombra del Sandino."
<https://www.kerwa.ucr.ac.cr/handle/10669/79450>
- Voz de Sandinismo. 2015. "Impacto ambiental del Gran Canal será positivo." *Voz de Sandinismo*, June 23, 105. <https://www.lavozdelsandinismo.com/nicaragua/2015-06-23/impacto-ambiental-del-gran-canal-sera-positivo/>
- Waddell, B. 2018. Laying the groundwork for change: A closer look at the U.S. role in Nicaragua's social unrest. *The Global Americans*. 5/1/2018.
<https://theglobalamericans.org/2018/05/laying-groundwork-change-closer-look-u-s-role-nicaraguas-social-unrest/>
- Wagner, J. R., Ed. 2013. *The social life of water*. New York, N.Y.: Berghahn Books.
- Watts, M. 2011. "Ecologies of Rule," in C. Calhoun and G. Derlugian (eds). *The deepening crisis governance challenges after neoliberalism (Possible Futures)* New York: New York University Press, 67-92.
- West, P. 2006. *Conservation is our government now: the politics of ecology in Papua New Guinea*. Durham, N.C.: Duke University Press.
- White, S. 2002. *El Mundo más que Humano en la Poesía de Pablo Antonio Cuadra: Un Estudio Ecocrítico*. Managua: Asociación Pablo Antonio Cuadra.
- Williams, T. R. 1990. "Ernesto Cardenal's El estrecho dudoso: Reading/Re-writing History." *Revista canadiense de estudios hispánicos* 15(1):111-121.

- Wolf, E. 1972. "Ownership and political ecology." *Anthropological quarterly* 45(3): 201-205.
- World Bank. 2013. *Policy and Investment Priorities to Reduce Environmental Degradation of the Lake Nicaragua Watershed (Cocibolca): Addressing Key Environmental Challenges*. Washington D.C.: World Bank.
- Ybarra, M. 2012. "Taming the jungle, saving the Maya Forest: sedimented counterinsurgency practices in contemporary Guatemalan conservation." *Journal of Peasant Studies* 39(2): 479-502.
- 2016. "'Blind passes' and the production of green security through violence on the Guatemalan border." *Geoforum* 69: 194-206.