


EXTRACTION, DISSENT & DEFORESTATION:
THE CHOCÓ FOREST OF ECUADOR AND COLOMBIA

AN HONORS THESIS
SUBMITTED ON THE 6TH DAY OF MAY 2020
TO THE DEPARTMENT OF POLITICAL SCIENCE
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
OF THE HONORS PROGRAM
OF NEWCOMB-TULANE COLLEGE
TULANE UNIVERSITY
FOR THE DEGREE OF
BACHELOR OF SCIENCES
WITH HONORS IN POLITICAL SCIENCE

BY

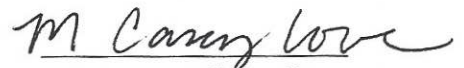


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ABSTRACT

Extraction, Dissent & Deforestation: The Chocó Forest of Colombia and Ecuador

Humans are converting forests for commercial uses at unprecedented rates, leading to decreases in biodiversity, climate change, and the loss of economically valuable land. However, the degree of environmental degradation differs among nations. For instance, in the biodiversity hotspot known as the Chocó Forest, Ecuador's tree cover is more depleted than Colombia's. Despite some economic and political similarities between the two countries, the nature and form of political dissent has caused differences in land use and thus the biophysical landscape of each country. In this study, I ask how dissidents prevented the tendency of extractive institutions to lead to environmental exploitation in Colombia versus Ecuador. I implement a comparative case study in order to uncover the effects of dissent, which resulted in different land-use practices. I show that the influence of the Fuerzas Armadas Revolucionarias de Colombia – Ejército de Pueblo (FARC-EP) in Colombia mitigated environmental extraction from 1989-1999. This study explores the importance of extractive institutions, populism, and violence for environmental degradation. As there is a current surge of conflict and neo-populism around the world, these findings highlight how such political phenomena may result in biophysical changes, with important consequences for the future of our natural world.

ACKNOWLEDGMENTS

First and foremost, I would like Dr. Ruth Carlitz, the director of my Honors Thesis, for her support over this past year. Without her guidance, consultation, and wisdom, this project would not have been possible. I am so incredibly thankful for the time you spent with me on this project, your enthusiasm for this puzzle, and for believing that I could do better. I am very happy to have gotten to know you and work with you over this past year.

I would also like to thank my other two advisors, Dr. Casey Love and Dr. Jordan Karubian for their support during the process of writing my Honors Thesis. Dr. Love was one of my early professors at Tulane who introduced me to the topic of institutions and piqued my interest in Latin America. I am also thankful to her for introducing me to Dr. Carlitz and creating a great team of advisors. Dr. Karubian offered the incredible opportunity to take a course in the Chocó forest of Ecuador in summer of 2019. I would not be writing this thesis without that experience.

Conceiving of a thesis would not have been possible without the Newcomb Scholars program. I would like to thank my professors, Dr. Aidan Smith, Dr. Anna Mahoney, Dr. Clare Daniel, Dr. Jacquelyne Howard, Dr. Beth Wee, and Dr. Michelle Adams for preparing me over four years on how to conduct interdisciplinary research. I would especially like to thank Dr. Smith for being an incredible mentor to me. Without taking her course my first semester of college, I am not sure where I would be now. I am also so grateful for the class of 2016 Newcomb Scholars cohort for supporting each other through the research process.

Last but not least, I would like to thank my family and friends for supporting me throughout this process. To both of my parents for showing me the importance of working hard and taking pride in what you do. Alternatively, my younger brother, Adrese shows me not to take anything too seriously and reminds me to laugh. Finally, my friends constantly cheered me on this year and through life. I could not have completed this project without any of these people.

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CHAPTER 1: INTRODUCTION

Around the world, tens of millions of hectares of rainforest are cut down each year,¹ leading to a loss in biodiversity, lack of carbon uptake, and destruction of valued sites. However, different nations experience deforestation to different extents. Sometimes, even countries with similar histories, economies, and geography diverge from each other in environmental outcomes. For instance, Ecuador and Colombia are neighboring countries but in the Chocó forest that extends between them, less than 5% remains intact in Ecuador, while 24% of primary forest is available in Colombia.² To understand what drives differences in deforestation, this study attempts to understand why land has been exploited in Ecuador to such a large degree, and what has mitigated similar exploitation in Colombia. In doing so, this research illustrates how domestic politics can influence the nature and degree of environmental degradation.

Existing theory acknowledges that human interactions shape environmental consequences. To date, literature regarding environmental degradation primarily addresses problems of environmental exploitation from the perspective of tragedy of the commons or ecologically unequal exchange. Examining environmental change as a tragedy of the commons often focuses on the limits of achieving collective action due to incentives for individuals to continue exploiting resources. Ecologically unequal exchange theory discusses how inequality in trade relations between the global north and global south results in exploitation. These theories however suggest that environmental

¹ Mikaela Weisse and Liz Goldman, “The World Lost a Belgium-Sized Area of Primary Rainforests Last Year,” Global Forest Watch, April 25 2019, <https://www.wri.org/blog/2019/04/world-lost-belgium-sized-area-primary-rainforests-last-year>

² “Chocó-Darién-Western Ecuador: Chocó- Manabí Conservation Corridor Briefing Book,” Critical Ecosystem Partnership Fund, January 24-25, 2005, <https://www.cepf.net/sites/default/files/final.chocodarienwesternecuador.chocomanabi.briefingbook.pdf>

outcomes across developing nations should be similar to each other. This cannot account for why there are such different outcomes in Ecuador and Colombia. In this study, I instead address how in both countries, there are forces that incentivize environmental degradation, but when certain actors such as organized dissenters or up-and-coming national leaders challenge norms, exploitation is reduced. Instead of addressing global trends of environmental degradation, this study looks at more specific patterns between extractive institutions, political dissent, and deforestation.

Forest management is influenced by society's demand for land exploitation and thus, informed by the political and economic climate that promotes or discourages exploitation. In my work, I theorize that social structures such as extractive institutions and neoliberalism promote environmental degradation. Extractive institutions are interactions with policy and the economy that benefit certain groups of society over others. I discuss this later in my thesis. I contend that extractive institutions and their relationship with environment can be mediated by political dissent. Dissenters may not be environmentalists but through virtue of challenging exploitative norms, they act as an intervention in the extractive system. I use this theoretical framework to address why land use in one forest, the Chocó, varies depending on the countries it extends through -- Colombia and Ecuador.

In order to shed light on the divergence in deforestation, it is necessary to compare what differs in the relationship between land use and deforestation between these two countries. To do so, I implement a comparative case study between Ecuador and Colombia in the Chocó from 1989 to 2009 – when institutional and dissent activities would affect forest patterns today -- that addresses how economic and political

interactions in the nations drive land conversions, while showing how political dissent can mitigate deforestation.

Specifically, I show that the Fuerzas Armadas Revolucionarias de Colombia - Ejército de Pueblo (FARC-EP / FARC) or “Revolutionary Armed Forces of Colombia – People’s Army” altered the exploitative system connecting society, land use, and deforestation. Through political dissent, the FARC stifled exploitative land practices and prevented the rise of agribusiness during their most active years. In Ecuador, I mostly observe extractive institutions, such as poor governance encouraging deforestation, including the rise in palm plantations, up until the election of Rafael Correa in 2006. His administration marked some institutional reform and brought about progress in the forest. In Colombia, there were extractive institutions, which should have encouraged environmental exploitation, but the FARC insurgency prevented the rise of the most exploitative commercial deforestation practices. Comparing these two nations sheds light on how political dissent changes the relationship between extractive institutions and land conversions.

This comparative study focuses on the Chocó forest which lies within a biodiversity hotspot called the Tumbes-Chocó-Magdalena (TCM). A biodiversity hotspot is a region that holds a disproportionately high amount of the world’s species and is most threatened by global change. Brooks, et al. describes these hotspots as “nature [putting] many of her eggs in a few baskets.”³ The Chocó and other hotspots are rapidly disappearing with global change, and we need to understand the human interactions that shape them in order to better understand how to preserve them.

³ Thomas M. Brooks, et al. “Habitat Loss and Extinction in the Hotspots of Biodiversity,” *Conservation Biology* 16, no. 4 (2002)

This chapter continues to define important terms for this study and give more detail on the cases. Chapter 2 then provides an overview of the existing theory as well as my own explanation for the empirical puzzle of divergent rates of deforestation and includes the methodology. Chapters 3 and 4 present the analyses of Ecuador and Colombia, respectively. Finally, Chapter 5 concludes with a discussion of the broader implications of my findings and maps the terrain of future research on related topics.

1. Definitions

Some of the main terms that I refer to in this thesis are “institutions” and “political dissent.” They are connected because institutions influence land conversion, which results in deforestation. However, this process may be mitigated by political dissent. The terms are defined below.

1.1 Institutions

This thesis understands institutions as the mechanisms through which society interacts with policy and the economy. They may be established informally, through norms, or formally through laws like the Bill of Rights.⁴ Political scientists and economists increasingly use institutions to explain why nations are the way that they are specifically, why some countries may have a better quality of life than others. For example, institutions are often used to explain why the developmental gap persists. Scholars argue that nations remain in the periphery, or fail to become wealthy, if they have extractive institutions. Institutions can also indicate inclination towards

⁴ Douglass C. North, “Institutions,” *The Journal of Economic Perspectives* 5, no.1 (1991): 97-112

environmental exploitation. For example, nations that are wealthier and have greater social welfare are less likely to rely on the agricultural sector. Further, nations that are influenced by elites may invest in exploitative industries so as to enrich themselves.

Institutions are extractive when social norms and laws move wealth from one sect of society to benefit another.⁵ Some examples of extractive institutions are corrupt leaders and lack of enforced property rights. Economic and political forces support each other to uphold extraction over time. For instance, leaders with bad governance may abuse the economic system to cover for their poor decision-making but ultimately create more wealth inequality, driving a greater need for land conversions. “Newcomers,” may break through extraction but are ultimately incentivized to create a similar set of institutions that the pre-existing elites benefited from.⁶

In Latin America, economic extraction originates from Spanish colonialism, rooted in unequal distribution of land. Extraction endured over time through political institutions where leaders could enrich themselves against the interests of society.⁷ In effect, Latin American society often depends on the agricultural sector because wealth was established on agrarian landownership during colonialism in many countries. Then, elites, typically from urban areas, generated wealth with the help of political leaders while peasant farmers remained in poverty. Paraguay, for example, has the most unequal land distribution in Latin America today. One of the main reasons behind this is that that

⁵ Daron Acemoglu and James A. Robinson, *Why Nations Fail: The Origins of Power, Prosperity and Poverty* (New York: Crown Publishers, 2012), 90.

⁶ Daron Acemoglu and James A. Robinson, *Why Nations Fail: The Origins of Power, Prosperity and Poverty* (New York: Crown Publishers, 2012), 96

⁷ Daron Acemoglu and James A. Robinson, *Why Nations Fail: The Origins of Power, Prosperity and Poverty* (New York: Crown Publishers, 2012), 93-94

Stroessner dictatorship of 1954-1989 allocated four times more land to his elite constituents than to all peasant families combined.⁸

Extractive institutions differ from “environmental extraction,” which refers to land destruction for the purpose of exploiting natural resources.⁹ Exploiting natural resources for trade is frequently referred to in the literature as “extractivism.”¹⁰ Extractivism is often facilitated by extractive institutions given that elites may control the resources that are exported and thus, the wealth that is generated.¹¹ Resource extraction and extractivism are often used to describe petro-economies but this type of exploitation can also describe agribusiness, narco-trafficking, and palm plantations given that these all involve the destruction of land to generate profit from natural resources.

1.2 Political Dissent

This thesis understands political dissent as opposition from members of society to institutions when they are found to be unjust. Dissent is part of all societies, to different extents, and manifests in both peaceful and non-peaceful forms.

In the early 2000s, Latin America experienced a “pink tide” where populist-socialist leaders as political dissenters challenged economic and political institutions to move towards participatory democracy. Dissenters, those involved in the social movement, were opposed to the lack of democratic consolidation, elitist corruption, and

⁸ Aranxta Guereña, “Unearthed: Land, Power and Inequality in Latin America,” Oxfam, 2016

⁹ Alfred Kingo Oyama Homma, “The Dynamics of Extraction in Amazonia: A Historical Perspective,” *Advances in Economic Botany* 9 (1992): 23-31

¹⁰ Alberto Acosta, “Post-Extractivism: From Discourse to Practice – Reflections for Action,” in *Alternative Pathways to Sustainable Development: Lessons from Latin America*, ed. Carbonnier Gilles, Campodónico Humberto, and Vázquez Sergio Tezanos, (Boston: Brill, 2017): 77-102

¹¹ Sebastian Matthes and Zeljko Crncic, “Extractivism,” Center for InterAmerican Studies, 2012

the neoliberal-capitalist system.¹² For example, Hugo Chávez created a new constitution in Venezuela, attempting to consolidate liberal democracy through formal institutions. He ushered in the wave of socialist leaders across Latin America which spread to Argentina, Bolivia, Brazil, Chile, El Salvador, and beyond – including Ecuador but not Colombia.

When dissent is nonpeaceful, dissidents may take up arms against corrupt governments to demand institutional change. Dissenters may create greater instability within the country and do not necessarily lead to democracy even if they bring forth attention to concerns for the people they represent. For example, the Sudan People's Liberation Army (SPLA) took up arms against the government in the 1980s with a Marxist platform. First, they used force to establish influence. By the 1990s, the SPLA used their power to create more inclusive institutions in the communities where they were present since the government failed.¹³ Still, the norms of liberal democracy do not exist in Sudan today so dissidence may be momentarily effective, but it is often not practical. The FARC was also a Marxist-inspired dissidence that used force to establish their own rule of law.

2. Getting to Know the Case

This study addresses why tree cover is more depleted in certain areas, corresponding with different countries, in the Chocó forest. Specifically, I look at how extractive institutions in Ecuador led to environmental extraction whereas political

¹² Luis Fleischman and Michael Skol, "What Triggered The Revolutionary Forces in Latin America?," in *Latin America in the Post-Chavez Era: The Security Threat to the United States* (University of Nebraska Press, 2013): 1-17

¹³ Claire M. Metelits, "The Consequences of Rivalry; Explaining Insurgent Violence Using Fuzzy Sets," *Political Research Quarterly* 62, no 4 (2009): 673-84

dissent in Colombia mediated extraction. Here, I introduce the puzzle of divergent patterns of deforestation in the Chocó and the corresponding institutions in these two countries.

2.1 The Chocó Forest

Perhaps the most recognized biodiversity hotspot in Latin America is the Amazon rainforest. The Amazon is the largest rainforest in the world, but the Chocó is just as important and worth studying because it is just as biodiverse and has more endemic species. As seen in Map A of Figure 1 below, the Chocó is separated to the west of the Amazon by the Andes mountains. Map A further compares land cover of the TCM (designated the Chocó-Darien), the Amazon Basin, and the Brazilian Atlantic forests.

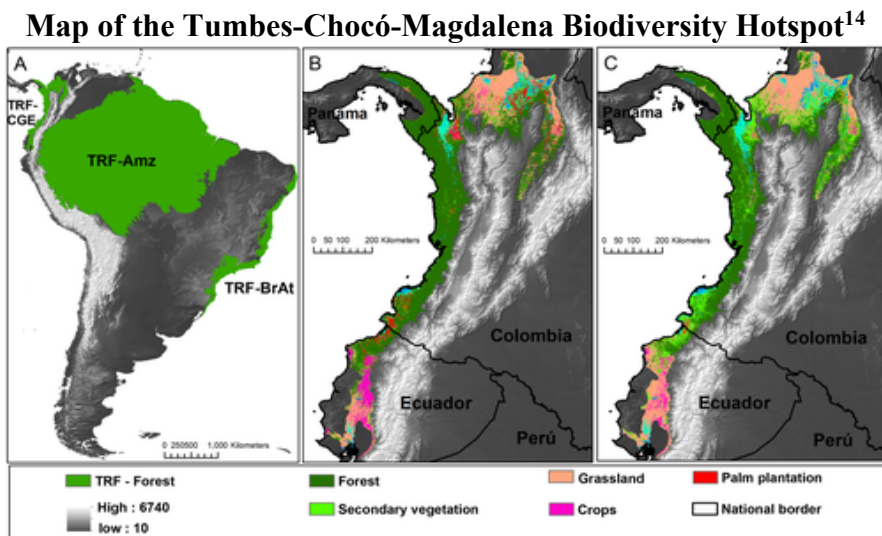


Figure 1. Reproduced from J. Camilo Fagua, Jacopo A. Baggio, and R. Douglas Ramsey, “Drivers of Forest Cover Changes in the Chocó-Darien Global Ecoregion of South America” – (A) Map of overall tropical rainforest in South America, (B) and (C) Map of the Tumbes-Chocó-Magdalena also referred to as the Chocó-Darien Ecoregion with observed changes in land-use and forest-cover in 2002 and 2015 respectively

¹⁴ J. Camilo Fagua, Jacopo A. Baggio, and R. Douglas Ramsey. “Drivers of Forest Cover Changes in the Chocó-Darien Global Ecoregion of South America.” *Ecosphere* 10, no. 3 (2019)

Maps B and C provide a closer look at the TCM in 2002 and 2015 respectively. Forest cover is more consistently depleted in Ecuador than in Colombia and Panama, the other two nations through which the TCM extends. About 33,861 km² of the TCM is within Ecuador and less than 5% of the original forest cover exists.¹⁵ Crops and cattle ranching are the largest causes of deforestation followed by palm plantations.

The Colombian forest is about 149,424km² and 24% is intact¹⁵. In Colombia, by contrast, cattle grazing is the primary driver of deforestation and is most significant in the north. Palm plantations are the second.¹⁶ Discussed in greater detail in chapter 4, the FARC worked to stop elite cattle ranchers and agribusiness with great success. When land was converted to crops in Colombia, the FARC created regulations on how much vegetation could be cleared¹⁷ so agriculture was more sustainable than in Ecuador.

Land conversions refer to when the forest is cut down for an economic reason. When people need to use land, they convert the forest into farms, plantations, mines or other extractive businesses. Agriculture is the largest sector in the Chocó in Ecuador and Colombia. Land conversion is an indication of the interactions between people and the political economy because land is exploited by people primarily for the agricultural industry.

¹⁵ “Chocó-Darién-Western Ecuador: Chocó- Manabí Conservation Corridor Briefing Book,” Critical Ecosystem Partnership Fund, January 24-25, 2005, <https://www.cepf.net/sites/default/files/final.chocodarienwesternecuador.chocomanabi.briefingbook.pdf>

¹⁶ J. Camilo Faguó and R. Douglas Ramsey, “Geospatial Modeling of land cover change in the Chocó Darien global ecoregion of South America; One of the most diverse and rainy areas in the world,” *PLoS ONE* 14, no. 2 (2019) <https://doi.org/10.1371/journal.pone.0211324>

¹⁷ Gena Steffens, “In Colombia, Peace Has Environmental Consequences,” *Public Radio International*, (May 3, 2018) <https://www.pri.org/stories/2018-05-03/colombian-amazon-peace-has-environmental-consequences>

2.2 *The Origins of Extractive Institutions and Land Use*

Despite the differences in deforestation rates, Ecuador and Colombia share a number of features in common. Both countries existed under Spanish colonial rule until militaries in northern South America led an independence movement in 1819, creating Gran Colombia, a state which encompassed modern-day Ecuador, Colombia, Panama, Venezuela, and parts of Peru, Guyana, and Brazil. Elites from the colonial system were still in power, upholding extractive institutions rooted in land ownership. For instance, voting was only offered to married men who owned property or worked a profession that guaranteed their independence.¹⁸ New leaders, like Simon Bolívar, were no longer loyal to the Spanish crown but still incentivized to regenerate extraction. Gran Colombia only lasted until 1831, where, the member states separated to the present-day countries. Following the dissolution, both Ecuador and Colombia experienced turbulent cycling between periods of free elections and military rule until democratic transitions in the 1980s.

Even after independence, large private lands called latifundios were still owned by elites in both countries. Haciendas, a farming system where a latifundio is owned by an elite and worked by rural laborers, also persisted. In the 1960s and 70s, many Latin American countries including Ecuador and Colombia, were characterized by social movements demanding agrarian reform and land redistribution. However, in some instances, the redistributed lands were infertile, and relics of the hacienda system and relationships of tenancy persisted.¹⁹ For instance, in Bolivia and Peru, land titles were

¹⁸ Christina Escobar, "Access to Electoral Rights," *EUDO Citizenship Observatory* (2015)

¹⁹ Matthew Hayes, "Into the Universe of the Hacienda: Lifestyle Migration, Individualism and Social Dislocation in Vilcabamba Ecuador," *Journal of Latin American Geography* 14, no. 1 (2015)

given to peasants so that they could make demands, but estate-owners still had some share of the properties. In effect, negotiations usually led to sharecropping.²⁰ Land reform was unsuccessful because the new laws still gave significant power to elites to uphold extraction.

Sometimes in search of a more profitable system than the hacienda, estate-owners sold latifundios to large, extractivist businesses. Oil palm plantations are currently the most significant businesses in the Chocó forest. These are large scale, often foreign-funded, operations that employ many people and utilize unsustainable growing methods. For instance, they implement monoculture growing techniques and spray contaminating pesticides. The palm tree itself is a foreign plant that takes up space in the forest at the sacrifice of native species. Many scholars agree that foreign extractivism is most detrimental to the land because it seeks to generate profit and has no historical ecological regard for the space. Further, environmentalists believe that deforestation is the consequence of foreign techniques over traditional ones.²¹

Yet, deforestation is still primarily perpetrated by locally owned farms. Rural inhabitants participate in crop cultivation as well as cattle grazing which accounts for grassland conversion. Figure 1 only accounts for legal land conversions such as corn, sugar cane, and plantain crops. Cultivation of illicit crops, especially coca, which has historically occurred near the two countries' borders and into Colombia's southern administrative departments, cannot be ignored.²² Several factors pushed cocaine

²⁰ William E. Carter, "Agrarian Reform in Latin America," *Proceedings of the Academy of Political Science* 30, no. 4 (1972): 1-14

²¹ Franklin Lopez, "Sustainable Development and Institutional Failure: The Case of Ecuador," *The Independent Review* 9, no 3 (2005): 339-351

²² Jennifer R. Mallette, "Geographically Sourcing Cocaine's Origin - Delineation of the Nineteen Major Coca Growing Regions in South America," *Scientifica Reports*, no. 6 (2016): 1-10

production out of the more populated areas of Colombia. First of all, the United States sponsored aerial spraying of pesticides across the land coca plantations that were easiest to get to. Further, the FARC did not support narco-trafficking and tried to minimize the trade across the country. Lastly, Ecuador converted to the American Dollar in 2000, which made money laundering much easier. All of these factors pushed cocaine production towards the Ecuador-Colombia border,²³ causing massive amounts of deforestation in the center of the TCM. I distinguish between legal versus illicit crops because they have separate types of interactions with society and specifically political institutions. Some background on these institutions is given below.

2.3 Institutions in Colombia and Ecuador

I indicate in this study that the economic and political institutions are historically similar in Ecuador and Colombia which creates a puzzle as to why there are different deforestation outcomes since institutions drive land conversion. Scholars have found that “good” institutions, i.e. less extractive ones tend to have better environmental outcomes.²⁴ Extractive institutions such as corruption, and lack of democracy which lead to wealth disparities are associated with degradation such as deforestation.

Using data from “V-Dem Data” I address three factors which indicate that the institutions in Ecuador and Colombia are extractive. I compare them in order to show the similar background of Ecuador and Colombia and how it cannot explain the divergence

²³ James Bargent, “Ecuador: A Cocaine Superhighway to the US and Europe,” Insight Crime, October 30, 2019 <https://www.insightcrime.org/news/analysis/ecuador-a-cocaine-superhighway-to-the-us-and-europe/>

²⁴ Shouro Dasgupta and Enrica De Cian, “Institutions and the Environment: Existing Evidence and Future Directions,” in *Climate Change: Economic Impacts and Adaptation* ed. Francesco Bosello (Venice: Fondazione Eni Enrico Mattei, 2016)

in deforestation outcomes. These factors include inequitable access to public services distributed by socio-economic position, political corruption, and lack liberal democracy across the two countries. I find that they have similar trends over history, that they tend to have institutions associated with environmental degradation. Since the two nations are similar institutionally, one would expect them to have similar environmental outcomes.

Access to Public Services Distributed by Socio-Economic Position²⁵

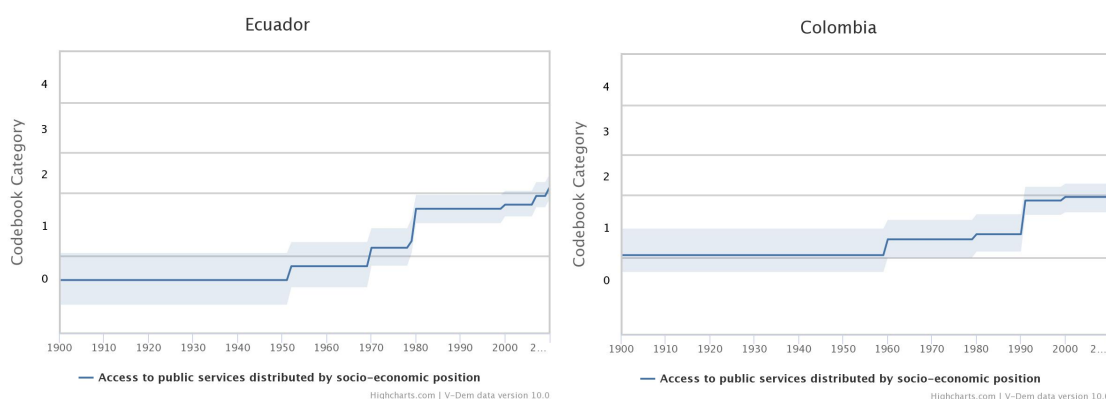


Figure 2. Access to public services such as order and security, primary education, clean water, and health care over time from 1900 to 2010 in Ecuador and Colombia on a scale of 0 (extremely unequal) to 4 (equal)²⁶

Figure 2 reflects whether basic public services are distributed equally according to socioeconomic position. More specifically, the index is used by experts to ask whether wealth is an important mechanism for distinguishing public service access in society. Public service access is an indication of whether institutions are extractive because it shows how groups of people are excluded from social benefits based on wealth. If there were inclusive institutions, there would be equal access because elites would not be

²⁵ Michael Coppedge, et al., “V-Dem [Ecuador, Colombia] Dataset v10,” *Varieties of Democracy (V-Dem) Project* <https://doi.org/10.23696/vdemds20>.

²⁶ Michael Coppedge, et al., “V-Dem Codebook v9,” *Varieties of Democracy (V-Dem) Project*, (2019): 198

hoarding public resources in their favor. As shown in Figure 2, both Ecuador and Colombia show an upward trend from the mid 1950s and plateau near “2” today. This score indicates that their society is “somewhat equal,” but, 10 to 25% of the population lacks basic public services.²⁴ The next factor explains corruption.

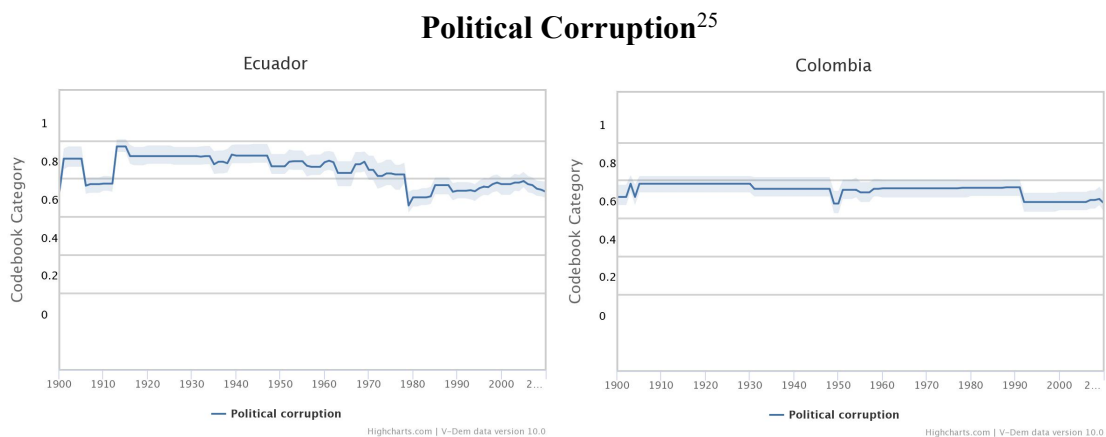


Figure 3. The pervasiveness of political corruption on a scale of 0 (low) to 1 (high)²⁷ from 1900 to 2010

Figure 3 compares political corruption in both nations over time, showing that both Ecuador and Colombia consistently have high corruption. I looked at this indicator because corruption is a distinct characteristic of extractive institutions. In this study, I claim that both nations have extractive institutions but in Colombia, they were weaker during the time of the FARC, which allowed the insurgency to resist businesses that would otherwise degrade the forest as they did in Ecuador. The final factor discussed is liberal democracy.

²⁷ Michael Coppedge, et al., “V-Dem Codebook v9,” *Varieties of Democracy (V-Dem) Project*, (2019): 266

Liberal Democracy²⁵

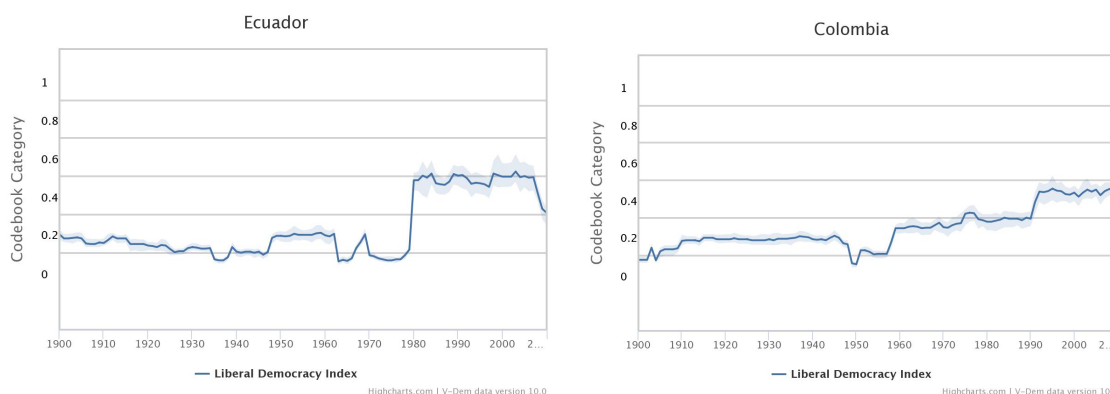


Figure 4. The extent to which liberal democracy was achieved on a scale from 0 (low) to 1 (high) from 1900 to 2010²⁸

The index in figure 4 asks to what extent was liberal democracy achieved. It defines liberal democracy as a society which is not only electorally democratic, but which protects civil liberties. . In these charts, we see that both countries struggle to achieve liberal democracy. Ecuador started near 1980 and Colombia near 1950 but both nations only achieve a mid-range score. Liberal democracy often parallels inclusive institutions given that democracies tend to be less extractive. Further, it is an indication of whether there is opportunity for political dissent. In a liberal democracy, those who oppose the political norms are still able to participate. Without liberal democracy, those who oppose the political norms may not have many opportunities to challenge the system such as in Ecuador or may find alternatives such as violence like in Colombia.

²⁸ Michael Coppedge, et al., “V-Dem Codebook v9,” *Varieties of Democracy (V-Dem) Project*, (2019): 40

2.4 Ecuador

This study attempts to discern why there is less forest cover in in Ecuador's part of the Chocó as compared to Colombia. It is important to map out some key features of the country to help make sense of this divergence. Today in Ecuador, less than 5% of the original Chocó forest remains, and there is an annual deforestation rate of 2.5%.²⁹ However, despite a history of land exploitation, the country recently pushed for conservation. In 2008, the nation passed the world's first Constitution with articles recognizing the rights of the natural environment.

In 1989, where we begin our study, Ecuador achieved some economic growth under a new, unconsolidated democracy. The nation was guided by a leftist political party with close ties to the United States. The leadership changed over very rapidly, each time showing more signs of corruption, ultimately resulting in deforestation. I discuss this further in chapter 4.

2.5 Colombia

There is greater forest cover in the Chocó forest of Colombia than in Ecuador. Most deforestation that occurs in Colombia occurs in the Amazonia region rather than the TCM. Today, 24% of the Colombian Chocó remains but deforestation in the region has risen over the years. The increase in exploitation in the region is a relatively new phenomenon, as throughout most of contemporary history, the Colombian part of the forest remained underused and intact. The main argument of this thesis is that deforestation was curbed for so long because the FARC-EP regulated lands in the region.

²⁹ Fundación Jocotoco, "Connecting the Ecuadorian Chocó," Conservation Corridor, April 15th 2019

To understand the origins of the FARC-EP, we must look back to the civil war known as La Violencia which created a power struggle in Colombian society for many decades. Today, the country is just stabilizing after ongoing disputes between the government, guerilla insurgencies, paramilitaries, and drug cartels. This thesis looks into the way the insurgency conflict mitigated environmental exploitation, which will be further discussed in chapter 5.

3. Significance

This research links society and ecology in new ways, giving a detailed examination to how political out-groups alter the connection between socioeconomic pressure and land exploitation. It recognizes that none of these factors are isolated from each other and brings together an audience who may be concerned with institutions, land management, biology, Latin America, and more to provide expanded knowledge to these disciplines. This thesis further brings forth a new theory instead of being confined to tragedy of the commons or ecologically unequal exchange.

This research is important because land inequality is the primary foundation of socioeconomic institutions across Latin America. Land inequalities and thus, land conversions will continue to affect exploitation in this tropical landscape. We must understand the history, the consequences, and the interventions upon land use in order to mediate the relationship behind land exploitation and biophysical change. This is especially useful in the Chocó forest which is relatively understudied but disappearing at a fast rate. A greater knowledge will help us to prevent further loss. This research can also be used to understand deforestation broadly. In general, I posit that political dissent

modifies institutions which in turn, mitigates degradation. In the following chapter will delve into the framework driving this theory.

CHAPTER 2: THEORETICAL FRAMEWORK & METHODOLOGY

In this chapter, I present the existing theories regarding the institutional causes of deforestation. I show the ways in which they are relevant but also the ways in which they fail to explain the differing outcomes in Ecuador and Colombia. In order to explain the gradient of deforestation in the Chocó, I present my own theory regarding political dissent, institutions, and environmental extraction.

1. Existing Hypotheses

Environmental degradation is often presented as a tragedy of the commons. This phenomenon occurs when multiple actors would benefit from the persistence of a resource but continue to exploit it, acting against the common good. For example, the global community would experience long-term benefit from switching to renewable energy, but individuals continue to exploit non-renewable resources, thus contributing to climate change, because the petroleum industry is lucrative. The reason that this happens is because there is more benefit to individual exploitation than individual conservation, so the multiple actors never achieve united conservation, or collective action which has more gains than exploitation.³⁰ This observation is useful for understanding why there are rarely large-scale successful environmentalist movements with a clear direction. However, it is not useful to understanding why Ecuador has less forest cover than Colombia. In fact, if this was a case of tragedy of the commons, Colombians should be acting against the common good, but instead, we see a movement for alternative land use. The tragedy of the common states that there is rarely collective action, but political

³⁰ Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action*, (New York: Cambridge University Press, 1990)

dissent, which we observe in Colombia, is by nature collective action. The FARC organized for land rights and in doing so, stopped the encroachment of extractivist businesses and implemented more sustainable forestry practices.

Another theory used to explain environmental degradation is that environmental exploitation implicates the relationship between the global north and global south – geographically and developmentally distinct sets of countries formerly referred to as the “first world” and “third world” respectively. For example, ecologically unequal exchange (EUE) is a sociological theory that focuses on how trade relations create environmental injustice. Typically, when there is a demand for a product in the global north, it requires intense exploitation of the resources for that product in the global south. Scholars discuss deforestation of the Ivory Coast for cocoa plantations in response to intense chocolate demand after 2009.³¹ This can be compared to the spread of palm plantations in the Andes region after the palm oil industry expanded at the turn of the century. EUE goes farther to say that capitalism is harmful not only because it encourages environmental exploitation but because wealthier nations are the ones extracting, polluting, wealth-hoarding, and are more protected from the damages.

This theory is connected to criticisms of neoliberalism which argue that the global north or “core” directly benefits from the subordination of the south or “periphery.” A drawback of this theory is that it broadly groups all developing nations. It poses the idea that developing nations have unequal access and thus lower capacity to deal with the consequences of environmental degradation, specifically pollution, relative to developed nations. By reflecting on the state of the environment of the global south only in terms

³¹ Jennifer E. Givens, et al., “Ecologically Unequal Exchange: A Theory of Global Environmental Injustice,” *Sociology Compass* (2019)

relative to the global north, EUE does not ever look at countries in within the core relative to each other. In doing so, this framework may fail to address some phenomenon that are more specific to fewer countries and regions like the Chocó. Ecuador and Colombia may both experience some environmental consequences from their relationship to the global north that creates relative inequality of the two states from the north, but this does not explain why their different from each other. In this study, EUE cannot account for the divergence of two similar states resulting in environmentally different outcomes.

2. Theories Put Forth in this Thesis

Since neither the tragedy of the commons nor ecologically unequal exchange theory can fully explain the puzzle observed in the Chocó forest, I present my own theory in three parts. I acknowledge that developmentally similar nations cannot always be grouped together. Further, I present a new variable, political dissenters, in the relationship between institutions and land conversion that should be studied as a factor of environmental outcomes everywhere. Finally, I specifically address what I observe is occurring in the Chocó forest of Ecuador and Colombia. My theory rests on the nature of the relationship between institutions and the environment. Figure 5 below explains such.

Relationship Between Human Interactions and the Environment³²

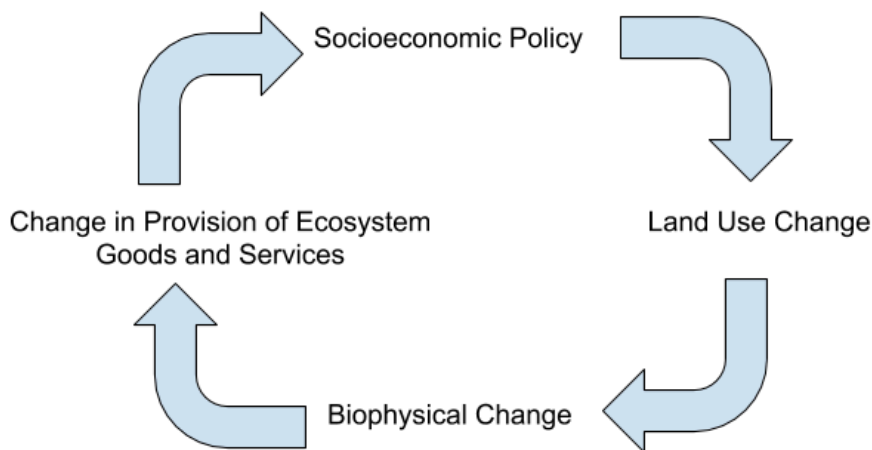


Figure 5. Modified diagram of Farley’s “A generalized framework for analyzing the socioeconomic, policy, and environmental conditions that promote land use change, as well as the biophysical response to that change, which influences the type and quantity of ecosystem goods and services produced.” Includes a cycle instead of a linear framework.

This diagram indicates how a specific institutional outcome, socioeconomic policy, as the driver of land use change. When an individual has an economic need, they are incentivized to exploit resources in the forest, thus converting the land. This results in changes to the biology. The depletion of resources in the ecosystem may in turn influence socioeconomic need as individuals exploit resources without replenishing them. For example, ranchers are driven to cattle raising for their livelihood thus, converting the forest into forest. They may feel the pressure to convert more lands as the forest does not regrow as quickly as their cattle graze.

Institutions are ultimately the cause of society’s socioeconomic balance. Unequal wealth distribution is a symptom of extractive institutions. Extractive institutions are

³² Kathleen A. Farley, “Grasslands to Tree Plantations,” *Annals of the Association of American Geographers* 97, no. 4 (2007): 755-771

more likely to lead to environmental degradation.³³ This thesis addresses how institutional factors, such as leadership behavior and the socioeconomic effects of that behavior such as high debt, influenced land change in order to understand the existing differences in the biophysical landscape in the Chocó forest observed today. Through this, we also look at how social factors, such as political dissent, interrupt the relationship between socioeconomics and land change.

2.1 Similar Nations Do Not Always Have the Same Ecological Outcomes

EUE theory presumes that all states in the periphery should experience similar environmental consequences given their relationship with the core. Yet, it is not possible for every industry that deforests to have the same environmental effects, even in regionally similar nations. Theories that operate under this assumption often primarily consider the petrol industry given that it is a large part of South American economies, typically foreign owned and government subsidized, and contributes not only to deforestation but to climate change. Further, oil wells are mostly found in the Amazon rather than the Chocó, which is given much more consideration as a biodiversity hotspot. Yet, agriculture rivals oil in land use and economic capacity across the continent. Agriculture and landownership are such a dynamic part of society that they must be studied in greater depth.

³³ Shouro Dasgupta and Enrica De Cian, "Institutions and the Environment: Existing Evidence and Future Directions," in *Climate Change: Economic Impacts and Adaptation* ed. Francesco Bosello (Venice: Fondazione Eni Enrico Mattei, 2016)

2.2 Political Dissenters Alter Expectations Between Institutions and Environment

The current literature shows that existing economic institutions incentivize people to exploit resources. In our case, economic institutions incentivize deforestation. However, the literature does not address actors who may de-incentivize resource exploitation. Political dissenters are able to do so by weakening the existing institutions that encourage deforestation.

Political dissenters rise through destabilizing events. One type is a resource windfall. These were common in Latin America during the 1970s after the discovery of vast oil reserves. These windfalls change leader behavior.³⁴ This leaves room for new groups to challenge those in power. In resource endowed nations, non-resource sectors become less productive and thus leaders must choose to invest government efforts into public goods. A “resource curse” occurs when an extractive leader chooses not to. Instead, they may use the newfound wealth for personal gain, towards maintaining power, or to repress the people. If people are unhappy with the way that wealth is being used, they may choose to dissent against their leader. When those who oppose resource exploitation are strong, they may stop environmental extraction. Another common destabilizing event is civil war. Instead of conflict resolution, the end of a civil war can result in further discontent among society to patterns of extraction. Colombia experienced a long civil war during the 1950s.

Once they become actors in society, dissenters’ primary goal is then to challenge existing institutions. Whatever issue particular issue they have with society is an issue with the entire institutional structure. For instance, when the FARC resisted unequal land

³⁴ Francesco Caselli and Tom Cunningham, “Leader Behaviour and the Natural Resource Curse,” *Oxford Economic Papers* 61, no. 4 (2009): 632.

distribution, they resisted norms of corruption and elitist influence. This same corruption and elitist influence also upholds environmental exploitation so by nature of challenging the extractive institutions, they challenged many of the unjust consequences.

Environmental advocacy was not the goal of the FARC, but political dissent had secondary effects on the environment because it challenged the same extractive institutions.

2.3 Explaining the Chocó Forest

In both Ecuador and Colombia, we observe a history of extractive institutions. However, in Colombia the persistence of the FARC-EP offset land conversion for many years relative to that in Ecuador where there was no guerilla insurgency. The decline of the FARC since the early 2000s has contributed to an increase in land conversion³⁵ while the neo-populist movement in Ecuador allowed for some reforestation in recent years.³⁶

The nations are very similar which is why it was so puzzling at first, to pinpoint the social factor that causes the divergence in deforestation. They look similar in economic models and power structures. They were both neoliberal, oil-based, elitist nations. These created wealth disparities that incentivized land conversions. I explain some of the characteristics of their similarities below.

In the 1980s, the capitalist ideology known as neoliberalism rose as the dominant school of thought guiding policies in the developing world. In Latin America, practicing

³⁵ Gena Steffens, "In Colombia, Peace Has Environmental Consequences," *Public Radio International*, (May 3, 2018) <https://www.pri.org/stories/2018-05-03/colombian-amazon-peace-has-environmental-consequences>

³⁶ Stansfield Smith, "Ecuador's Accomplishments under the 10 Years of Rafael Correa's Citizen's Revolution," *Council on Hemispheric Affairs*, (April 17, 2017) <http://www.coha.org/ecuadors-accomplishments-under-the-10-years-of-rafael-correas-citizens-revolution/>

neoliberalism sharply shifted these nations from Prebisch-influenced reluctance to trade under import-substitution industrialization (ISI). For decades, ISI was practiced out of fear of becoming dependent on the global north. John Williamson appropriately described the translation of neoliberal theory into ten specific policy mechanisms which are referred to as “The Washington Consensus.”³⁷ In summation, the policies emphasize export-oriented free trade, reduced government spending, and deregulation. Moreover, international financial institutions (IFIs) such as the International Monetary Fund (IMF) offered aid on the condition of abiding by these prescriptions. In Latin America, many countries’ contemporary institutions are influenced by neoliberalism, historic landownership trends, and resource endowments.

Certain Latin American countries are moderately endowed with oil resources in addition to their natural agricultural exports. In the 1970s, when the oil reserves were first exploited, this resulted in a shift from “banana republic” modeled economies to petrol and agriculture balanced economies. The inflows of money could have mitigated poverty but extractivism persisted and further, nations often experienced windfalls in the form of a resource curse. An institutional consequence of the curse is that it provides elites the opportunity to allocate wealth and power in their favor. Caselli and Cunningham articulate these implications stating,

“The elite is the direct recipient of resource revenue and its problem is how to allocate this revenue (and its energy) between its own enrichment, activities that increase the elite’s chance of retaining power, and investments that can increase the economy’s capacity to produce non-resource income.”³⁸

³⁷ John Williamson, ‘What Washington Means by Policy Reform’ in *Latin American Adjustment: How Much Has Happened*, ed. John Williamson (Washington D.C.: Institute for International Economics, 1990)

³⁸ Francesco Caselli and Tom Cunningham, “Leader Behaviour and the Natural Resource Curse,” *Oxford Economic Papers* 61, no. 4 (2009): 630.

Elites, wealthy individuals who may be in government or have significant sway over government officials, may choose to directly extract resource revenue for personal gain rather than empower the rest of the nation towards long-lasting development especially in non-democratic nations. In other instances, leaders may not use the wealth directly for personal profit, but rather to entertain patronage and defend against competitors. This system, however, may be interrupted by political dissenters who demand the redistribution of wealth or termination of corrupt practices.

Elites can also profit by owning several lands in several different sectors. Accumulating wealth and power in one area such as oil, agribusiness, or politics, provides the means to work in another sector. Conversely, those in poverty get stuck in a feedback loop where they cannot make any gains in status. This is why certain individuals are incentivized to continue exploiting land as much as possible to open as many opportunities while other individuals will continue to participate in sustenance farming.

3. Scope Conditions

The cases this thesis focuses on – Ecuador and Colombia – were chosen in part because they reflect larger trends across the region. These trends include the reliance on agriculture, subscription to neoliberalism, petro-economics, and elitism. In this thesis, I seek to be more specific than existing hypotheses of tragedy of the commons and EUE by focusing in on Latin America and the rural, agricultural, tropics. This theory can be applied where there is a similar history of land use if one seeks to understand how political dissent may intervene. Specifically, the theory put forth in this case is limited to

those concerned the relationship between political dissent and extractive institutions in an environmentally exploitative system.

4. Methodology

I have already determined that formal and informal institutions determine people's need or willingness to exploit the land, resulting in conversions and deforestation. For the rest of this thesis, I will conduct case studies on Ecuador and Colombia to analyze the institutions contributing to inclination towards land exploitation.

I will compare the two countries from 1989-2009, subdivided into two periods of ten years: 1989-1999 and 1999-2009. I chose this time period because it allows me to reflect on some of the FARC-EP's most active years that would still impact the structure of the forest today. I intend to look at the extractive nature of leadership behavior in the context of their political-economic history. I analyze how leaders' decisions set socioeconomic conditions that facilitated land conversion. Further, I search for how dissidence challenges the nations' leaders and alters the extractive outcomes.

The comparative method can help to answer why there is less forest cover in Ecuador than in Colombia. To operationalize this method, I conducted a review of secondary sources. First, I studied the contemporary history of these two countries to understand leaders and conflict on a timeline. Then, I studied more in-depth accounts of institutions and dissent activities in the two nations. I then discuss the quality of Colombia's institutions and political dissent relative to those in Ecuador.

Choosing two cases to examine over a short period of time limits the number of variables and makes it more likely to find an explanatory factor.³⁹ I use a qualitative case study approach because I am asking “how” and “why” the forest has two separate outcomes in these two countries.⁴⁰ Completing not only case studies but comparing the two of them will give insight to the phenomenon of political dissent.

5. Limitations

This study is limited by access, technology, and biases. For access, I am relying primarily on others’ descriptions of the institutions in Ecuador and Colombia. I studied various accounts in order to try and make sure that I had a wide ranging amount of descriptions. I would like more maps of forest cover in the Chocó to compare to FARC-EP active locations in the Chocó but the technology for geospatial mapping of forests was not consistent across the studied time period. If I had maps that portrayed the forest more consistently over time, I also could have compared this to institutional factors such as access to public services by socioeconomic position, political corruption, and liberal democracy in the country at specific times. Still, I included maps and quantitative statistics when possible. Lastly, I am biased as an American researcher. I interpret institutional norms and motivations for land conversions from my own perspective. To overcome this, I try to use a variety of sources, some from the United States and some from the studied countries.

³⁹ David Collier, ‘The Comparative Method,’ in *Political Science: The State of the Discipline II*, ed. Ada W. Finifter (Washington D.C.: American Political Science Association, 1993)

⁴⁰ Pamela Baxter and Susan Jack, “Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers,” *The Qualitative Report* 13, no. 4 (2008): 544-559

Despite these limitations, I have compiled enough information to thoroughly examine what occurred in the Chocó forest to contribute to the divergence observed today. I analyze the two countries in the following chapters.

CHAPTER 3: ECUADOR

In this chapter, I seek to understand how the land in Ecuador's Chocó forest was used over time and why. The "why" can be uncovered from the institutional change in Ecuador. As discussed previously, socioeconomic policy drives land use change and I further discussed how socioeconomic policy is a symptom of economic and political institutions. In this chapter, I study the history of these institutions to discern different factors that are connected to deforestation. I will go over in depth the causes and consequences of political factors such as decentralization, corruption, and newcomers and economic factors such as debt, rentier economics, and foreign investment. First, it is necessary to give a timeline of key moments in Ecuador's contemporary history leading up to where this study begins.

1. Background

Ecuador has a history of extractive institutions. Economic and political norms over the nation's contemporary history often protect elites and increase wealth inequality. I give an overview of this history to show the consistency of extraction and the prevalence of norms. When examining the institutions and leadership behavior within the study period, we can put them in a larger context of historical extraction.

In the 1950s, Ecuador experienced an economic boom based on banana exports. This expanded agricultural wages, urbanization, and internationalization but elite exporters were still favored in this system.⁴¹ Throughout this period, José María Velasco Ibarra served five terms as president with some dictatorial qualities. For example, he

⁴¹ Estefanía Salvador Tamayo, "The understanding of development in Ecuador through institutions and beliefs, 1950-2014," *Lund University School of Economics and Management* (June 2014): 18-19

continued taking the office despite calls of electoral illegitimacy. Through the 1960s, external debt quadrupled and though there was some necessary infrastructure investment, it largely benefited elites. During this time, military junta ruled Ecuador and sponsored an agrarian reform movement. The new regime focused on industrialization rather than social equity, so poverty in rural areas expanded.⁴²

By the 1970s, oil resources found in Ecuador made the nation very attractive to transnational businesses. This ushered in an era of true dictatorships, an indicator that the petrol business was a resource curse leading to a rentier economy. This meant that the Ecuadorian economy thrived off of exports so much that the leaders were no longer held accountable to the people.⁴³ The military proclaimed Velasco Ibarra a dictator and overthrew him in replacement for another dictator, Guillermo Rodriguez Lara. With the oil money, the state was able to please constituents through social spending, but the government also incurred great amounts of external debt. Further, the improvements, such as modernization movements, were not wholly successful. Instability, inequality, and corruption still persisted.⁴⁴

In the 1980s, the bourgeoisie or economic elites, upset with the dictator's reckless investments, advocated for a democratic transition. However, the elites did not regard civil liberties; this was rather an effort to protect elitist interests that were endangered by the irresponsible state. Democracy was a mechanism of restoring the power and influence

⁴² Estefanía Salvador Tamayo, "The understanding of development in Ecuador through institutions and beliefs, 1950-2014," *Lund University School of Economics and Management* (June 2014): 22-23

⁴³ Michael L. Ross, "What Have We Learned about the Resource Curse?," *Annual Review of Political Science* 18, (2015): 246

⁴⁴ Estefanía Salvador Tamayo, "The understanding of development in Ecuador through institutions and beliefs, 1950-2014," *Lund University School of Economics and Management* (June 2014): 24-27

of elites.⁴⁵ Jaime Roldós was elected in 1979 but the process was still controlled by the military. Under his regime, debt still expanded especially as Ecuador engaged in a territorial conflict with neighboring Peru.

We begin this study in 1989, when the country elected Rodrigo Borja, a socialist who began to consolidate democracy, curb elitist influences, and strike down calls for the return of a military leadership. He was a newcomer with the potential to turn away from extractive norms in Ecuador yet, corruption and economic instability prevailed. By the end of the 1990s, peaceful power transitions stopped, and a revitalization of liberal democracy was needed. The election of Rafael Correa in 2007 was a monumental turn for Ecuador's progressives leading the nation to where it stands today.

2. 1989 – 1999: Elites & Leaders Extract

In this time frame, I will discuss different political and economic institutions that are connected to land conversions. In the political system, elites are important as lobbyists, clients, and patrons. This influences how money is invested and thus, whether extraction occurs. Leaders are ultimately the most important actors who determine where capital flows.

2.1 *Elite Influence*

Actors may create institutions that uphold or resist decentralization through incentives.⁴⁶ For example, leaders are incentivized to make decisions by the interest of

⁴⁵ Estefanía Salvador Tamayo, "The understanding of development in Ecuador through institutions and beliefs, 1950-2014," *Lund University School of Economics and Management* (June 2014): 31

⁴⁶ Jonas Frank, *Decentralization in Ecuador: Actors, Institutions, and Incentives*, (Munich, Germany: Nomos, 2007): 65

staying in power. Their constituents may convince them to do something by threatening to remove them from power. In Ecuador, elites wanted to decentralize because they feared a strong central power that would undermine their own assets, so they organized in favor of decentralization at the municipal level and then the national. In August of 1988, after President Borja was elected, he received a letter signed by all of the mayors of the municipal associations condemning the centralized state and demanding that power and more autonomy be transferred towards the local governments to preserve democracy. The letter is called “La Carta del 88” and set a roadmap for how the new democracy would work throughout the 1990s. Each province ended up dealing with the costs of decentralization differently, resulting in asymmetric fiscal capacities and external debt.⁴⁷ The process of decentralization demonstrated the influence of elites in the political process to structure institutions in their own interests. Elites had more control in their local politics and were then able to wield this new power to keep land amongst themselves.

2.2. Leadership Behavior

Leaders who do not demonstrate good governance create unequal living conditions that encourage exploitation. In 1992, Sixto Durán-Ballén was elected president in the middle of a financial crisis. In order to alleviate inflation rates, he led the country to membership with the World Trade Organization (WTO) and followed neoliberalism closely. For example, he embraced structural adjustment programs, increased restrictions

⁴⁷ Jonas Frank, *Decentralization in Ecuador: Actors, Institutions, and Incentives*, (Munich, Germany: Nomos, 2007): 30

on monetary policy, reduced public spending, and promoted exports.⁴⁸ However, later Ecuador was entirely unable to pay its debts due to long-term ineffectiveness of these policies. During this time, his vice president and an overseer of economic policy, Alberto Dahik, fled to Costa Rica after charges of corruption. Further, in a nationalistic vein, Durán-Ballén poured money into defending the Peruvian border, eventually escalating to the Cenepa War. This pleased his elite constituents who wanted their territory protected but decreased investment to social security. Durán-Ballén used his authority to create a resource curse within the country and faced no successful opposition from the people.

Abdalá Bucaram succeeded Durán-Ballén in 1996 and promised to restructure political institutions but ultimately upheld extraction to an even greater extent. In order to achieve reorganization in the decentralized state, where his opponents controlled the legislature, he had to convince many of them to switch parties. Over the years, Bucaram gave his elite friends control of privatized lands. A banking crisis ensued as bankers loaned themselves money to acquire state property and issued more currency resulting in inflation. Bucaram claimed to be a populist leftist who wanted to restructure the institutions in Ecuador but ultimately, practiced corruption more than ever before and took a strong neoliberal stance when the economy faltered. He was ultimately impeached for mental incapacity, fled for political asylum and left an open office up for grabs.

Initially, the head of Congress, Fabián Alarcón, was sworn in Bucaram's place in 1997 until the Vice President, Rosalía Arteaga disputed it. Two days after she became president, Alarcón pressured Arteaga out using military support, thus marking the end of democracy.

⁴⁸ Franklin E. Maiguashea G., "The Role of State and Market in the Economic Development of Ecuador," *Journal of Economic Issues* 27, no. 2 (1993)

2.3 Costs of Extraction on Land Use

As a result of bad governance by leaders and the elite's political participation, socioeconomic policies favored industrialization and extractivism. For example, Durán-Ballén's administration introduced the Ley de Ordenamiento del Sector Agrario, influenced by a landowning elite think tank, which sought to develop rural areas for agrarian reform rather than promote social welfare, through land redistribution.⁴⁹ The government's lack of commitment to land redistribution was one contributor to income inequality. This was exacerbated by neoliberal policies which decreased inflation rates but led to debt insolvency. Figure 6 below shows how over the decade, the poor received a smaller percentage of income, or in other terms, became poorer, while the rich received a greater percentage of income. Increased poverty leads to increased need for sustenance farming.

Share of Total Income (%) in Ecuador from 1990-2000⁵⁰

Year	The poorest 20%	The richest 20%
1990	4,60%	52,00%
1995	4,10%	54,90%
1999	2,46%	61,20%
2000	2,10%	58,00%

Source: Central Bank of Ecuador, Monthly statistical information.

Figure 6. Table of Income in Ecuador reproduced from Estefanía Salvador Tamayo, "The understanding of development in Ecuador through institutions and beliefs, 1950-2014,"

Further, the structural adjustment programs encouraged foreign investment. Oil palm plantations arrived in Ecuador towards the end of the 1990s. Production spread

⁴⁹ Geoff Goodwin, "The Quest to Bring Land Under Social and Political Control: Land Reform Struggles of the Past and Present in Ecuador," *Journal of Agrarian Change* 17, no. 3 (2017): 571-593

⁵⁰ Estefanía Salvador Tamayo, "The understanding of development in Ecuador through institutions and beliefs, 1950-2014," *Lund University School of Economics and Management* (June 2014): 38

from Southeast Asia to Latin America in order to keep up with the growth of the industry. For example, one company Palmoriente S.A. received capital from Belgian, British, and German companies.⁵¹ These businesses occupy protected areas and act as profit-oriented outsiders with no regard for sustainable growing methods. Some of the money generated from these schemes helps the Ecuadorians working for the companies but much of it goes to investors. Often, foreign investors are connected with members of the government. The former President of the National Congress, Juan José Pons was a shareholder of Ales and as the Minister of Industry to President Borja he increased prices of edible oils, generating more wealth for himself and fellow shareholders. While elites were getting richer off of an environmentally exploitative practice, peasants were getting poorer by paying higher prices and living on low wages. Palm plantations then became a leading cause of deforestation in the Chocó. This is a clear illustration of how institutional and environmental extraction are linked in the Chocó forest.

3. 1999– 2009: Dollarization to Anti-Dollar

The socioeconomic landscape changed after an economic crisis. In 1999, a financial crisis struck Latin America in response to a crisis of hot-money inflows in Southeast Asia. Foreigners were making short term investments in the East Asia that eventually created asset bubbles which slowed the market. To offset this, money was then invested into Russia which slowed the oil market, affecting Latin America. Reeling from years of economic instability, combined with a regional recession, Ecuador's Central Bank changed the nation's currency to the American dollar to combat inflation rates. This

⁵¹ Ricardo Carrere, *The Bitter Fruit of Oil Palm: Dispossession and Deforestation*, (Montevideo, Uruguay: World Rainforest Movement, 2001): 19-25

slowed economic growth but stopped the extreme monetary fluctuations. The rest of the decade marked a recovery from the imbalanced economic practices and a search for liberal democracy.

3.1 Extractive Institutions After Crisis

The economic crisis altered institutions in the nation. By the turn of the 21st century, the military was re-involved in government processes. Due to his mishandling of the financial crisis, president Jamil Mahuad was forced out of power in 2000 when the military staged a coup against his administration. The coup was staged by Lucio Gutiérrez, a military leader, with the support of indigenous Ecuadorians inspired by Chávez's movement in Venezuela. Some of the main grievances were discontent with neoliberal policies and demands for indigenous rights. The coup ultimately failed showing that Ecuadorians wanted to restructure the corrupt institutions.

After the attempted coup, several leaders still extracted wealth from the nation. Gustavo Noboa, the replacement for Mahuad mishandled the foreign debt and was forced to flee the nation after his term ended. Gutiérrez then became president and went back to neoliberal practices and invoked dictatorial policies such as reorganizing the Supreme Court and taking power from Justices. The corruption and lack of democratic processes all served to contribute further to extraction in two ways. First, they kept land in the hands of self-interested elites who exploited the territory. Secondly, this generated inequalities that created agricultural dependency. In 2006, however, a new leader was elected who tried to initiate change by restructuring the formal institutions and stop abiding by the extractive norms

3.2 Election of Rafael Correa

In late 2006, democratic-socialist, Rafael Correa was elected president of Ecuador. He was a non-traditional candidate: speaking out against elites and the neoliberal institutions that had prevailed since the 1980s. In an effort to encourage democracy, his administration created a new constitution in 2008. The new document expands liberal rights, including those of the environment and limits private trade and FDI contracts.

Under Rafael Correa, extractive land use practices were reduced. His progressive social policies brought education and food security to peasants, mitigating the cycle of poverty and decreasing agricultural dependency. Further, he actively opposed the palm plantations and agribusiness. While this was not pertinent to the Chocó, his Yasuní-ITT initiative is indicative of his opposition to exploitation. In order to prevent reliance on the oil industry in the eastern part of Ecuador, Correa asked the global community to finance the amount of money that would otherwise be made from drilling in Yasuní national park.

Correa was a dissenter in two ways. One of his first tasks was to change formal institutions in Ecuador by creating a new Constitution. This created new, progressive institutions. In effect, institutional extraction decreased in the nation. For example, he implemented better governance leading to better social welfare.⁵² This motivated a people's movement to oppose elitism.

Personal non-conformity of leadership behavior is the strongest aspect of non-military dissent. It took many years to find a leader who did not abide by the norms of

⁵² Marc Becker, "The Stormy Relations Between Rafael Correa and Social Movements in Ecuador," *Latin American Perspectives* 40, no.3 (2013): 43-45

neoliberalism. Still, Correa did not entirely undo historical precedent because even his successor, and former vice-president, Lenin Moreno has defaulted on conditional loan agreements and reduced social security. Formal, governmental institutions, like constitutional law, may have some impact on environmental outcomes but ultimately behavioral norms determine extraction.

Institutions get their strength from being repeated over time and becoming normalized in society. So, when leaders change their behavior, they weaken institutions. It took many years to find a leader who did not abide by the norms of neoliberalism. Still, Correa did not entirely undo historical precedent because even his successor, and former vice-president, Lenin Moreno has defaulted on conditional loan agreements and reduced social security. Formal, governmental institutions, like constitutional law, may have some impact on environmental outcomes but ultimately behavioral norms determine extraction. Leaders actually take actions that allow extraction to persist.

4. Key Takeaways

Overall, Ecuador shows two distinct patterns in the relationship between institutions and the environment. For several years, extractive institutions coincided with deforestation, specifically driven by the agricultural sector. Between 1990 and 2000, the agricultural sector grew by 6.1%⁵³ and that impact has lasted given that today, we observe crops as the primary land conversion in the Ecuadorian Chocó. The palm plantation also grew as a leading exploitative sector. Leadership behavior specifically drove the growth of agriculture, palm oil, and ultimately deforestation. Leaders made

⁵³ J. Camilo Faguó and R. Douglas Ramsey, “Geospatial Modeling of land cover change in the Chocó Darien global ecoregion of South America; One of the most diverse and rainy areas in the world,” *PLoS ONE* 14, no. 2 (2019) <https://doi.org/10.1371/journal.pone.0211324>

decisions that resulted in greater socioeconomic divisions that pushed the need for the agricultural sector. They also encouraged foreign investment which grew the palm oil industry.

Then, a shift was realized after the election of Rafael Correa. He rewrote the constitution in favor of expanding civil liberties and included the rights of nature. This article recognized that the integrity of the environment could be legally protected. The Correa Administration improved social welfare for Ecuadorians and the agricultural sector decreased by 1.8%. Reforestation efforts improved. Overall, Rafael Correa qualifies as a political dissenter who weakened the existing extractive institutions and consequently mediated environmental degradation. However, the lasting influence of Correa cannot yet be determined. Although he worked towards anti-corruption efforts Correa himself was charged with corruption after he left office so it is unclear whether new leaders will choose to be more or less extractive. Further, his successor Moreno, appears to favor more exploitative economic practices. Correa may have inspired collective action however, as the Citizen Revolution Movement political party was created in his absence to continue the efforts of his original platform. Perhaps, newcomers will be incentivized to create more inclusive institutions, albeit slowly. It is necessary to continue to monitor leadership behavior and the state of the Ecuadorian Chocó.

CHAPTER 4: COLOMBIA

In this chapter, I not only seek to understand how land use impacted deforestation in Colombia, but how these patterns are different from those in Ecuador. In Colombia, extractive institutions existed, much like those in Ecuador, but the FARC-EP curtailed the extent of extraction. In Ecuador, decentralization, corruption, and debt led by the government allowed for deforestation. In Colombia, these practices still occurred but the government was so weakened by conflict, so the FARC was able to set up its own institutional norms that changed land use.

1. Background

Contemporary history in Colombia is shaped by the La Violencia, a civil war fought from 1948 to 1958, which was initially a battle between the two dominant political parties: Liberal and Conservative. However, then the Colombian Communist Party (PCC) and other groups joined the war, so Liberals and Conservatives agreed to share power to end partisan violence. The war concluded when the two parties established the National Front, a compromise where they rotated executive and parliamentary power between themselves for each election. However, this effectively silenced all other political opinions. By excluding third parties, political leaders actually drove people to support outgroups such as the PCC and later, the FARC.

The history of the FARC-EP is tied to that of the PCC. The PCC supported a “a revolution against the Colombian capitalist class and state,”⁵⁴ demanded social transformation, and supported militarization of dissenters, specifically rural-dwellers. By

⁵⁴ James J. Brittain, *Revolutionary Social Change in Colombia: The Origin and Direction of the FARC-EP*, (London, New York: Pluto Press, 2010), 2.

1939, over 150 peasant leagues formed with communist agendas and many ultimately transformed into guerilla operations by the 1960s.⁵⁵ The establishment of the FARC-EP was a direct consequence of communist efforts and militarization of the left.⁵⁶

The National Front ended in 1974 but its influence lasted longer. The insurgencies that developed were very strong and subsequent leaders, such as Alfonso López Michelsen tried to please insurgent interests. However, the newcomer could not live up to all of the expectations and some extractive norms persisted, which served to unify the insurgency's platform further. A tense relationship between leaders and guerilla groups went on for decades. Leaders could not fulfill all of the demands of the insurgency while still meeting the demands of other interest groups. Many of these interest groups directly conflicted with the platform of the FARC, such as the narco-bourgeoisie and foreign investors. Thus, conflict persisted, and extractive institutions were weakened by dissidents although the institutions still had some influence in society.⁵⁷

2. 1989 – 1999: Height of the FARC-EP

2.1 Extraction and Power

Colombia's political and economic institutions, including governance were extractive. In 1991, Colombia adopted its current Constitution under Liberal President César Gaviria. The document emphasized decentralization and democracy. Gaviria was

⁵⁵ Eric B. Ross, "Clearance as Development Strategy in Rural Colombia," *Peace Review* 19, no. 1 (2006): 59-65.

⁵⁶ Catherine LeGrand, "The Colombian Crisis in Historical Perspective," *Canadian Journal of Latin American and Caribbean Studies* 28 (2003): 165-209

⁵⁷ Eduardo Posada Carbó, "Colombian Institutions: On the Paradox of Weakness," *Harvard Review of Latin America* (2013)

succeeded by Ernesto Samper in 1994, another member of the Liberal party, who used cartel money to finance his campaign but was never prosecuted. Despite the constitutional reform, corruption still had a place among Colombian elites and democracy was not consolidated.

The policy of decentralization aimed to move towards fiscal federalism and delegate certain parts of government to regulate social services. Government functions under decentralization were most difficult to operationalize at the local level and those in rural areas were most often left without basic necessities. The pre-existing structure of political parties and lack of trained civil servants were the main challenges.⁵⁸

Extraction diverges in Colombia, contrasted to Ecuador, in that the country's elites are not only influential in politics, but some are also involved in the narcotics industry. This is complex because some landowners have the means to use violence to either protect their lands or intimidate politicians. In Ecuador, the government was the only militarized actor, but in Colombia, the government was armed, landowners contracted private militaries, and private citizens took up organized arms.

Another extractive institution was land ownership. Land was a means of keeping wealth stagnant among elites. There was a de-agriculturalization (of legal crops) due to land speculation by the narco-bourgeoisie. In order to launder money from the growing cocaine economy, these elites bought land and stopped using it for food production. The state encouraged low land speculation by implementing a low tax policy so land could be acquired for low rates. This took away opportunity for farmers to work and produce their own capital. Instead, land was hoarded among elites. Thus, less capital flowed through

⁵⁸ Eduardo Posada Carbó, *Colombia : The Politics of Reforming the State*, (Institute of Latin American Studies Series. New York: St. Martin's Press, 1998), 107.

society, so wealth did not reach other classes of people. Further, often, the bought lands were not entirely idle, but rather converted to cattle ranches. Still, ranches produce less than one-third of dollars than a farm does and they are more environmentally destructive. Elites could afford to finance themselves on narco-dollars while productive lands and opportunity were taken from those who could use it.⁵⁹ The government aided this process through tax rates and further through encouragement of foreign direct investment (FDI). Foreign businesses, specifically agribusinesses also bought lands taking opportunity away from the Colombian farmers. However, the FARC pushed back against agribusinesses, preventing their extensive emergence until the early 2000s.⁶⁰

Land ownership is a symbol of wealth and historically, a point of contention for extraction and equity. Law 135 is an agrarian policy from the late 1960s that promised to distribute land equitably but structurally allowed political and economic elites, those with wealth and governmental influence, to monopolize land ownership. These elites significantly swayed the government, tended to live in cities despite owning rural real estate and lastly, were often drug-traffickers.⁶¹ The peasant farmers were either forced to move away from their homes, become tenants on lands they worked, or be subjected to violence if they resisted. For years, landowners relied on oppressing the people so much that they would not have any resources or strength left to resist.⁶² The FARC-EP stepped

⁵⁹ Nazih Richani, "Predatory State and Rentier Political Economy," *Labour, Capital and Society* 43, no. 2 (2010): 121-123

⁶⁰ Nazih Richani, "Predatory State and Rentier Political Economy," *Labour, Capital and Society* 43, no. 2 (2010): 127

⁶¹ Eduardo Posada Carbó, *Colombia : The Politics of Reforming the State*, (Institute of Latin American Studies Series. New York: St. Martin's Press, 1998), 117.

⁶² James J. Brittain, *Revolutionary Social Change in Colombia – The Origin and Direction of the FARC-EP*, (London: Pluto Press, 2010), 63-88

in by fighting the paramilitaries hired by landowners to protect the land, providing agency to the peasantry, and forming an insurgency against the Colombian institutions.

2.2 Intervention of the FARC-EP

Although extractive institutions in the form of corruption, bad governance, and inequality existed, the FARC was also present. The organization was strong in numbers and military capacity, thus countering the power of the national leadership and elites. The FARC underwent its most dramatic increase during the 1990s. The motivation for membership was driven by society's dissatisfaction with neoliberal policies and state repression. Over this one decade, the organization grew more than it had in the past three preceding decades. In 1991, 2% of Colombian municipalities had a guerilla presence while by 1999, 95% of them did. Some scholars suggest that violence may deter deforestation because citizens will migrate away from violence.⁶³ However, other scholars argue that the FARC was actually integrated into Colombian life rather than disrupting it. This is characterized by Brittain, "the FARC-EP is not differentiated from the peasantry, but rather respectfully inhabits the same environment."⁶⁴

If deforestation was not prevented by the FARC's violence, it must have been prevented by some other action that the organization carried out. Scholars note that towards the end of this decade, hundreds of thousands of disenfranchised people actually

⁶³ J. Camilo Fagua, Jacopo A. Baggio, and R. Douglas Ramsey. "Drivers of Forest Cover Changes in the Chocó-Darien Global Ecoregion of South America." *Ecosphere* 10, no. 3 (2019)

⁶⁴ James J. Brittain, *Revolutionary Social Change in Colombia – The Origin and Direction of the FARC-EP*, (London: Pluto Press, 2010), 33

moved into FARC territory for security.⁶⁵ To some extent, the protection restructured communities entirely and decreased inequality.

To sustain such growth, the FARC-EP also had to continue fundraising. During this decade, they primarily relied on taxation of citizens in their controlled territories. Some have suggested that they became a narco-guerrilla organization to support themselves.⁶⁶ This means that they are thought to have been involved in the drug trade. Yet, the FARC has an organizational ban on using drug-trafficking to finance their efforts.⁶⁷ So, the FARC never participated in drug distribution despite some claims comparing them to the cartels. They did however have a relationship with coca farmers, cocaleros, through protection racketeering, which taxes citizens for protection.⁶⁸ The FARC gained most of its funds through taxing producers in the areas they controlled. Some elites resisted and hired their own paramilitaries to avoid paying for land and ranches. For the most part, taxation was successful.

During this decade, the FARC had two goals, the first was to keep land in the hands of peasant farmers and the second was to take over areas that were owned by elites. They completed the first by exerting their power in rural areas, keeping out the government and cartels. Figure 6 below shows their presence.

⁶⁵ James J. Brittain, *Revolutionary Social Change in Colombia – The Origin and Direction of the FARC-EP*, (London: Pluto Press, 2010),

⁶⁶ Catherine C. LeGrand, “The Colombian Crisis in Historical Perspective,” *Canadian Journal of Latin American and Caribbean Studies / Revue Canadienne Des Études Latino-Américaines et Caraïbes* 28, no. 55/56 (2003): 165–209.

⁶⁷ Alain Labrousse, “The FARC and the Taliban’s Connection to Drugs,” *Journal of Drug Issues* 35, no. 1, (2005): 169-184

⁶⁸ Ricardo, Vargas, “State, Esprit Mafioso, and Armed Conflict in Colombia,” In *Politics In The Andes: Identity, Conflict, Reform*, edited by Jo-Marie Burt and Philip Mauceri, (University of Pittsburgh Press, 2004)

Violent Presence of all Armed Actors in Colombia in 1990 and 1995⁶⁹

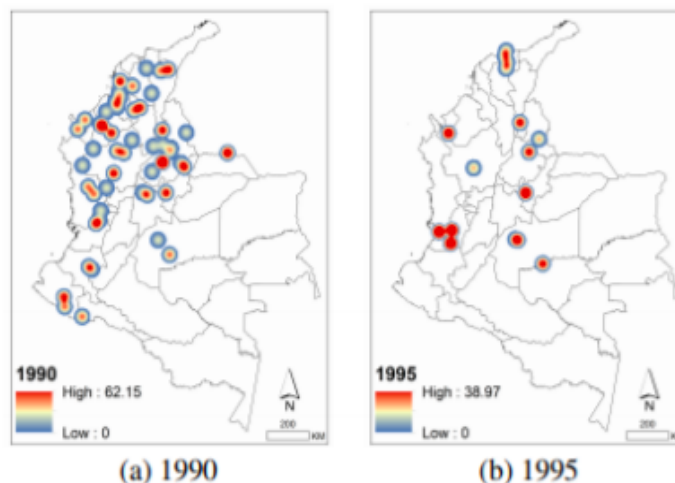


Figure 7. Violent Presence of all Armed Actors in Colombia in 1990 (a) and 1995 (b) reproduced from Javier Osorio, Mohamed Mohamed, Viveca Pavon, and Susan Brewer-Osorio, “Mapping Violent Presence of Armed Actors in Colombia”

Figure 6 above shows all of the armed actors in Colombia during the beginning and middle of our studied decade. In 1990, when the FARC is the strongest, most were located in the western part of the country, in the TCM. In these locations, the FARC focused on keeping land in the hands of peasant farmers rather than allowing in agribusiness and plantations. This kept the most destructive deforesters at bay.

Their second strategy was to take over areas that were cartel strongholds, and more broadly, owned by elites. Mostly, this meant a mobilization of FARC members from rural areas into cities. However, in the TCM, one of the most important strongholds was on the border of Ecuador, in the middle of the forest, since it was a location for coca plantations and trafficking. This location does not show good forest outcomes in relationship with the FARC and rather, has consistently been a heavily deforested area. It

⁶⁹ Javier Osorio, Mohamed Mohamed, Viveca Pavon, and Susan Brewer-Osorio, “Mapping Violent Presence of Armed Actors in Colombia,” International Cartographic Association (2019)

is unclear whether deforestation is due to the FARC presence or cartel presence. Figure 7 below depicts deforestation in the TCM in 2015. Deforestation at the border is circled.

Deforestation Hotspots in the Tumbes-Chocó-Magdalena (2015)⁷⁰

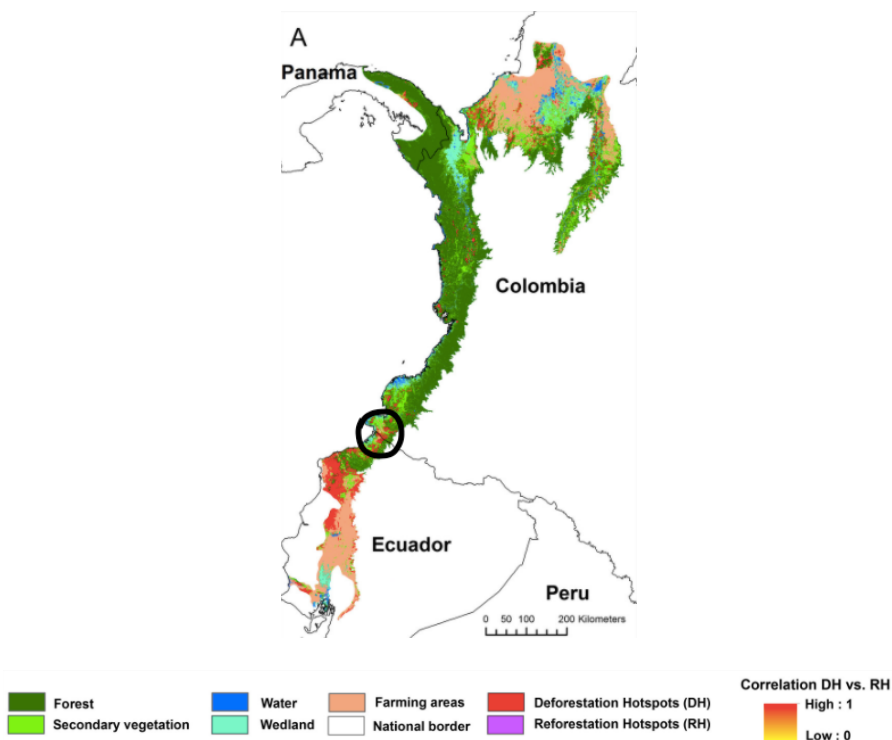


Figure 7. Deforestation Hotspots in the TCM in 2015. Circle highlights deforestation along Ecuador-Colombia border. Reproduced from J. Camilo Fagua, Jacopo A. Baggio, and R. Douglas Ramsey, “Drivers of Forest Cover Changes in the Chocó-Darien Global Ecoregion of South America”

Since the FARC-EP was directing efforts toward urban areas, armed forces were still present in the rural parts of the forest but in weaker capacity. The organization planned a large scale offensive strategy on multiple fronts against the Colombian army to take place in the later 1990s. Most of the attacks took place in the southern and eastern

⁷⁰ J. Camilo Fagua, Jacopo A. Baggio, and R. Douglas Ramsey. “Drivers of Forest Cover Changes in the Chocó-Darien Global Ecoregion of South America.” *Ecosphere* 10, no. 3 (2019)

parts of the country, so those in the TCM were not subject to the type of violence that some scholars suggested would cause land abandonment. FARC members were more likely to stay in the forest which was relatively secure. The FARC's cohabitation in rural society resulted in less deforestation in the majority of the Colombian TCM.

In the forest, the FARC resisted the influence of the extractive government. The two sides clashed with each other, preventing the rise of agribusiness in these locations. Figure 8 provides more detail about the types of actors and their locations. The FARC-EP is categorized as an insurgent group. While this map is spread across a longer timeline, it is still a good indicator of the FARC's location. There was a clear stronghold near the Ecuador border and some in the middle of the TCM.

Violence by Type of Actor in Colombia from 1988 to 2017⁶⁹

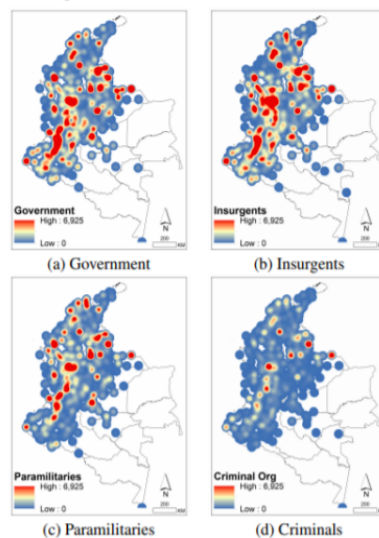


Figure 8. Violence by Type of Actor from 1988 to 2017 (Where the FARC is characterized as an insurgent group) reproduced from Javier Osorio, Mohamed Mohamed, Viveca Pavon, and Susan Brewer-Osorio, “Mapping Violent Presence of Armed Actors in Colombia”

Figure 9 further distinguishes insurgents between the FARC and the Popular Liberation Army (EPL), another guerilla organization in Colombia. This map shows that the FARC was specifically more centered in the TCM than the EPL.

Violence by Insurgent Groups in Colombia from 1988 – 2017⁶⁹

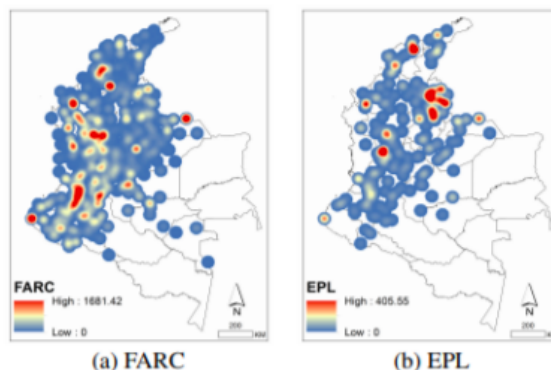


Figure 9. Violence by insurgent groups distinguished between FARC and EPL from 1988 – 2017 reproduced from Javier Osorio, Mohamed Mohamed, Viveca Pavon, and Susan Brewer-Osorio, “Mapping Violent Presence of Armed Actors in Colombia”

3. 1999 – 2009: Cracking Down & Neoliberalism

3.1 Change in Leadership Behavior

Over time, the government became stronger they were before. This can be observed by their successful resistance to the FARC. As the government took control, its institutions were stronger in the face of the FARC. For example, elected officials normalized anti-terror tactics coordinated with the United States and re-wrote the Constitution to give more power to the executive. One trend was the weakening of the

FARC because of peace negotiations and the strengthening of prescription towards neoliberal economics.

In 1998, Andrés Pastrana, the first Conservative president since 1986, was elected to the Colombian presidency. People thought he wanted to reform the conflicts occurring throughout the nation given that he himself had been a kidnapping victim by the Medellín cartel and the first to point out Samper's corruption. Pastrana then took steps to start peace negotiations with the FARC-EP and another paramilitary organization known as the Ejército de Liberación Nacional or "National Liberation Army" (ELN) and set up a de-militarized zone. The drug cartels lost a relatively large amount of their power and securing peace with the FARC was a final step in peace. In 1999, the FARC had approximately 15,000 operating combatants establishing their own rule of law in the lands they controlled. Their rules included taxation and taking control of lands.

While negotiating with the FARC, Pastrana also set up deals for multilateral foreign aid. What came into fruition was Plan Colombia, a monetary and military aid package from the United States to Colombia for counter-narcotics and counter-terrorism goals. The FARC-EP was considered a terrorist threat and thus subject to counter-terrorism operations sponsored by Plan Colombia. Pastrana originally intended to get aid from other countries and for some of the aid to go towards other developmental goals that could eradicate poverty.⁷¹

The Pastrana Administration noted that conflict in Colombia was a symptom of inequality and could not be solved by stopping the drug and guerilla organizations

⁷¹ Reid, Brittany T. "The Consequences of Plan Colombia: Domestic Drug Policies in Colombia," Bates College (2015)

themselves, or else, new ones would just fill their place.⁷² In October of 2000, a coalition of NGOs called Paz Colombia hosted the International Meeting on Peace, Human Rights, and International Humanitarian Law in support of the peace processes but condemned Plan Colombia for it was not comprehensive. The United States, however, was primarily focused on their own set of austerity measures and consistent with a neoliberal structural adjustment program.

Negotiations fell apart among the government and the FARC and Pastrana was not re-elected. It is widely accepted knowledge that the FARC-EP was using a negotiated demilitarized zone for training programs and violating the terms of the peace process. The FARC could no longer be trusted diplomatically so the Colombian government went on an intense offensive to reclaim FARC-controlled land.

Pastrana's successor, Álvaro Uribe, broke ranks with partisanship and achieved high approval on both sides for his main commitment to ending violence in Colombia. Pastrana recognized the FARC as members of Colombian society and their movement as part of the nation's culture. They deserved accommodation. However, Uribe distanced the insurgents from nationals and refused to take any action that may seem to legitimize FARC activities, such as creating another demilitarized zone. Uribe coined the term "democratic security" to promote his tactics. Violence declined and his approval soared so much that in 2005, the Constitution was amended to allow Uribe to run for reelection.⁷³

⁷² Doug Stokes, *America's Other War: Terrorizing Colombia* (London; New York: Zed Books, 2005)

⁷³ Elias Koskinen, *Colombia: U.S. Relations and the FARC Peace Process*, (Latin American Political, Economic, and Security Issues. New York: Nova Science, 2013)

During this period, the FARC lost power. Colombia achieved some reforms such as decreasing corruption and reducing the drug trade, but the nation also subscribes to many neoliberal prescriptions, notably foreign investment which takes land opportunity away from Colombian farmers. This brought forward some of unequal conditions that political dissent suppressed. In effect, we see a society that again encourages environmental exploitation. This contrasts from Ecuador where over time, we observed a shift away from extraction towards collective action. In Colombia, many citizens rejected the FARC's movement because they were tired of the violence.

Decades of norms created by the FARC that resisted extraction disintegrated with time. The institutions that radical political dissenters put in place cannot last because people they are unstable. Democratic norms and violence cannot coexist forever so these institutions must be built in some other way.

3.2 Change in Deforestation

As the FARC declined in the early 2000s and extractive institutions in Colombia grew stronger, deforestation increased in the nation. Figure 10 below shows that deforestation in the Colombian TCM grew greater than that in the Ecuadorian from 2002-2010. Meanwhile, in Ecuador, as environmental initiatives took place and the socioeconomic gap was closed a little under Correa, more reforestation took place during this time. In the future, this may contribute to a shift in the patterns we observe in the forest cover.

Deforestation and Reforestation from 2002 – 2010 in the Tumbes-Chocó-

Magdalena⁷⁴

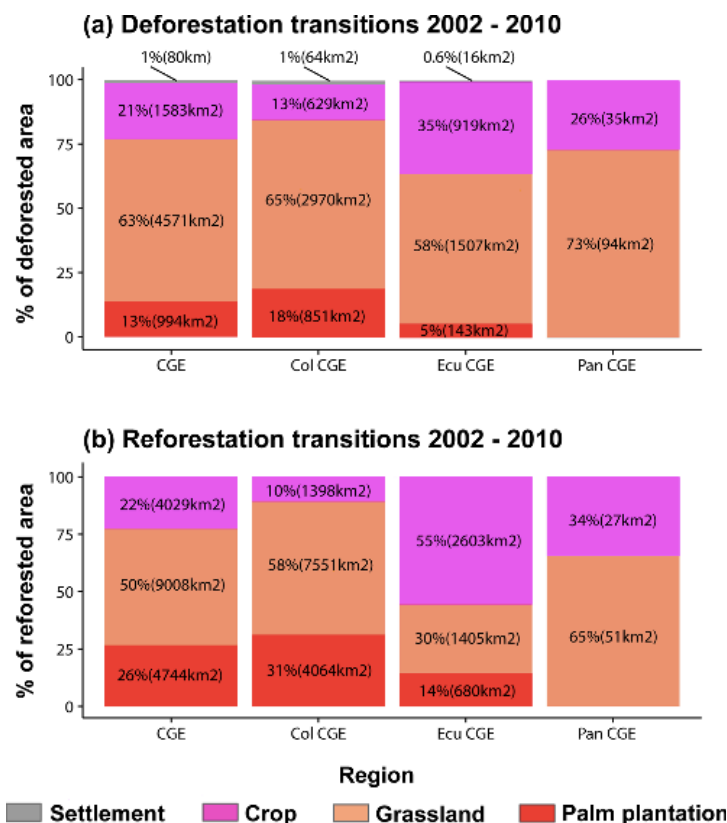


Figure 10. Deforestation and Reforestation from 2002 – 2010 in the Chocó-Darien global ecoregion reproduced from J. Camilo Fagua and R. Douglas Ramsey, “Geospatial Modeling of land cover change in the Chocó Darien global ecoregion of South America; One of the most diverse and rainy areas in the world”

4. Key Takeaways

In studying Colombia my goal was to search for general trends and differences from Ecuador. In the beginning of this time period, Colombia had extractive institutions, but political dissent prevented the most destructive forms of land conversion from occurring. In Ecuador, towards the later of the study period, political dissent did not prevent

⁷⁴ J. Camilo Fagua and R. Douglas Ramsey, “Geospatial Modeling of land cover change in the Chocó Darien global ecoregion of South America; One of the most diverse and rainy areas in the world,” *PLoS ONE* 14, no. 2 (2019) <https://doi.org/10.1371/journal.pone.0211324>

extractive institutions from encouraging exploitation but rather, made institutions more inclusive. This is perhaps because the political dissent in Ecuador was non-violent and by nature, more inclusive itself for it did not seek to harm others. Colombia later defaulted back on extractive institutions as political dissent declined, indicated that environmental exploitation may rise.

CHAPTER 5: DISCUSSION & CONCLUSION

In this research, I sought to understand why the Chocó forest in Colombia has significantly more tree cover than that in Ecuador. What unfolded was a comparison into the extractive institutions driving land conversion and the organizational behavior that can stop it. I discovered that the FARC-EP's political dissent challenged existing extractive institutions set up by the government and other elites. I wanted to compare this to Ecuador, where there was no significant insurgency presence and there, I found the opposite narrative than that in Colombia. In Ecuador, at first, extractive institutions did lead towards environmental exploitation but then, a newcomer, Rafael Correa, challenged norms and created new institutions that protected the environment. In this chapter, I review the case findings, key takeaways, implications, and suggestions for future research.

1. Case Findings

1.1 Ecuador

During the first period observed, 1989-1999, extractive institutions coincided with environmental extraction. During the second, 1999-2009, Ecuador started on the same pattern until the start of Rafael Correa's first term in 2007. He then began making changes to the formal institutions such as the constitution and his own behavior went against the informal institutions including aversion to IFIs. In effect, some land use patterns changed where forests were conserved. It is unclear whether this change is lasting given that his successor gave into some extractive processes

1.2 Colombia

In Colombia, despite the existence of extractive institutions, the FARC-EP's violent political dissent mitigated environmental extraction. This is likely because the existing institutions were weak from the previous civil war and the FARC was strong because of general dissatisfaction leading to growing membership. The organization was able to mitigate environmental extraction by challenging the existing ones for the first period of our study, 1989-2009. However, in the second period 1999-2009, the FARC was weak leaving a power vacuum for the government to strengthen their institutions. Extraction and neoliberalism dominated leading to environmental extraction and deforestation.

2. Takeaways

Overall, this study confirmed that institutional extraction leads to environmental extraction. Specifically, leaders uphold institutions in their behavior and when they are corrupt, do not uphold good governance, or subscribe to economic systems that exacerbate wealth inequality, people are more incentivized to exploit the land. However, it also showed that political dissent can mitigate this relationship to different extents depending on the type of dissent. I only expected to see a relationship between the FARC-EP and mitigation of land conversion. Given the time period of this study, and lag between institutions and environmental outcomes, the FARC-EP in the 1990s is what had the most impact on forest patterns observed today. However, I also observed forthcoming non-violent political challengers in Ecuador which may have an effect on future forest

cover. Reforestation has been observed in Ecuador recently. Lastly, we saw that post-dissent can lead to intense environmental extraction.

3. Implications

This study suggests that the relationship between institutions, land use, and environmental outcomes can be affected by political dissent. Those who look to prevent environmental extraction may do so by challenging formal practices and informal norms. The primary goal of the dissent may not be environmental protection but just the act of opposing extractive institutions mitigates environmental extraction.

Yet, there may also be negative consequences to political dissent. It cannot be overlooked that the FARC-EP terrorized the people of Colombia in order to achieve their goals and thousands of lives were lost. Mafia and terror tactics may be able to empower some people but can never truly achieve the goals of a liberal democracy because they inherently go against it. While their opposition to extraction mitigated some environmental extraction there was no real environmentalist movement. The environmental outcomes were just an unintended symptom of the FARC presence, not an achievement. Violent political dissent is not the best mechanism for influencing environmentally beneficial outcomes because there is also destruction that goes along with conflict.

Conversely, non-violent dissent in Ecuador has the possibility of fueling a much more focused approach to environmentalism. When Rafael Correa challenged Ecuadorian institutions, he was not only focused on getting rid of extraction but also building a liberal democracy. In doing so, he structured formal institutions as well as informal ones

whereas the FARC-EP was only focused on opposing extraction. This extension in Ecuador allowed for constitutional rights of nature and indigenous land rights movement.

4. Future Research

This study raises a number of questions for the study of environmental protection and contentious politics. One question that must continue to be interrogated is whether political dissent or just conflict drives the environmental outcome observed in Colombia. Existing studies show that conflict itself tends to have a negative impact on the environment which is why I point to political dissent as a positive influence. Still, future studies should compare nations that are both enduring conflicts, where one specifically is dissenting against the government and the other is engaged in another type of fighting such as an international dispute. This would further strengthen the argument that political dissent is the cause for the FARC-EP's influence on environmental outcomes rather than conflict itself. Studies related to conflict and the environment should also address land abandonment. Some sources suggest that people in FARC territory were abandoning their land due to conflict⁷⁵ which is why the land was protected while others suggest people were moving into the FARC territory for protection.⁷⁶

Conflict is an increasingly interesting variable on environmental outcomes. The Central Intelligence Agency (CIA) listed 250 conflicts in 2014 and at least 155 of them

⁷⁵ J. Camilo Fagua, Jacopo A. Baggio, and R. Douglas Ramsey. "Drivers of Forest Cover Changes in the Chocó-Darien Global Ecoregion of South America." *Ecosphere* 10, no. 3 (2019)

⁷⁶ James J. Brittain, *Revolutionary Social Change in Colombia: The Origin and Direction of the FARC-EP*, (London, New York: Pluto Press, 2010),

occurred in biodiversity hotspots.⁷⁷ It is imperative that we understand how conflict affects land use. These conflicts not only affect the present but the future of the forests that are being lost at a rapid pace. Land use dictates the persistence of the forests and our ability to mediate the conversions determines the future of biodiversity. Part of understanding these relationships comes from understanding that different types of conflict may have different outcomes.

Finally, I suggest that we continue to monitor the institutions and forest in Ecuador and Colombia. While forest cover remains more depleted in Ecuador, reforestation has started to occur more rapidly there than in Colombia. It will be interesting to see if Correa's successors will continue to challenge the norms and create new ones or if they will revert to former ways of extraction. We must also continue to monitor the forest in Colombia and promote peaceful, collective action against the influx of exploitation in recent years.

⁷⁷ Richard J. Weller, Claire Hoch, and Chieh Huang, "Conflict and Displacement," *Atlas for the End of the World* (2017)

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