Coffee and Climate Change: a comparative analysis of civil society and indigenous politics in Oaxaca and Chiapas, Mexico

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Abstract

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Coffee is an important commodity not only for the consumer but also for producers. However, climate change is threatening the future of coffee and is driving it out of places where it was historically grown. In Mexico, Chiapas and Oaxaca are two of the largest coffee producing states and have become victim to the impacts of climate change as it is altering the coffee production landscape, and creating an environment that may be unsuitable for coffee in the future. In a comparison of these two states, there are many similarities in terms of the coffee sector and demographics, but upon closer examination, starkly different patterns of civil society and political actions have been taken for climate change. For example, Chiapas passed a climate change law three years before Oaxaca. Focusing specifically on coffee, both local and international organizations in Chiapas are investing in coffee conservation projects, whereas in Oaxaca only international NGOs have been active in the coffee sector. In this comparative analysis of civil society dynamics, coffee, and indigenous politics, I offer plausible explanations for why there is a major difference in political and programmatic action within these two states. I argue that in Chiapas, a state that has been historically more democratic, has created a space to engender bottom-up or grass-roots initiatives, giving rise to more progressive and community-based actions on climate change as a whole thus resulting in being more responsive and adaptive actions for the coffee sector.

Keywords: Mexico, Chiapas, Oaxaca, Climate Change, Coffee, Civil Society, Indigenous movements.

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1. Introduction

Coffee originated in Ethiopia in the middle of the fifteenth century and became a major global commodity in the seventeenth and eighteenth centuries. As such, it witnessed a major boom as a result of the Industrial Revolution.[1] Coffee is grown all over the world and has the largest presence in Latin America, Africa, and Asia.[2] Latin America has become one of the largest coffee producers in the world and has become known for its diversity in taste profiles; nutty, chocolaty, and acidic. Brazil, Guatemala, El Salvador, and Mexico are some of the major coffee producing countries in Latin America. Mexico produced 3,100,000 60kg (132lb) bags in 2016[3] making it one of the top ten producers of coffee globally.[4]

Demand for coffee continues to grow over time, but the most significant threat to its future is climate change. Changes in temperature and precipitation are some of the biggest threat to the coffee sector. Higher temperatures have resulted in a higher prevalence of coffee rust which is a fungus that can be found on the leaves of the coffee bush.[5] The presence of coffee rust can cause the plant to defoliate early which then reduces the plant's ability to photosynthesize leaving the plant in a vulnerable position and can result in lower yield in the next season.[6] Climate change is also impacting the regions where coffee currently grows. Especially for *Arabica* variety of coffee, changes in precipitation and temperature can be devastating. It is

[1] Williams, R. G. (1994). *States and social evolution: coffee and the rise of national governments in Central America*. The University of North Carolina Press. https://doi.org/10.5860/choice.32-4084
[2] Hoffmann, J. (2018). *The World Atlas of Coffee: From beans to brewing-coffees explored, explained and enjoyed*. Mitchell Beazley.
[3] Hoffman 2018
[4] Food and Agriculture Organization of the United Nations. (n.d.). FAOSTAT Database. Retrieved from http://www.fao.org/faostat/en/?#data/QC/visualize
[5] Jaramillo, J., Chabi-Olaye, A., Kamonjo, C., Jaramillo, A., Vega, F. E., Poehling, H. M., & Borgemeister, C. (2009). Thermal tolerance of the coffee berry borer Hypothenemus hampei: Predictions of climate change impact on a tropical insect pest. *PLoS ONE*, *4*(8). https://doi.org/10.1371/journal.pone.0006487
[6] Arneson, P. A. (2000). Coffee rust. The Plant Health Instructor. https://doi.org/10.1094/PHI-I-2000-0718-02

predicted that coffee will migrate towards more favorable areas and higher elevations.[7] Climate change not only impacts the coffee plant itself, but also the individuals who grow, sell and consume it.

Oaxaca and Chiapas are two of the largest coffee producing states for Mexico. Both states have similar coffee structures and demographics, however, when highlighting actions that each state has taken in response to climate change, both states have taken different approaches. It is clear that despite many similarities in other areas, the difference in action towards climate change demonstrates a significant dissimilarity in the ways that their respective governments manage and prioritize certain threats and issues. Table 1 illustrates key similarities and differences between both states. Focusing on the source of the differences will help to explain why they occur in the first place.

Table 1. Key descriptive elements between Chiapas and Oaxaca, Mexico

Key Descriptive Elements	**Chiapas**	**Oaxaca**
Coffee production ranking for Mexico	1st	3rd
Type of coffee produced	Arabica Coffee	Arabica Coffee
State Coffee Institute	Yes	In progress
Large Indigenous Population	Yes	Yes
Large Indigenous Movement	Yes	Yes
The threat to coffee by climate change	Yes	Yes
Climate Change Law	Yes – Passed in 2010	Yes – Passed in 2013

[7] IPCC, 2014: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1132 pp.

Case Presentation

Coffee

Coffee comes in many different varieties with Arabica coffee (*Coffea arabica L.)* being the most popular.[8] In 2018, it accounted for about 62% of commercial production for all coffee.[9] Arabica coffee is mostly grown in tropical highland regions as it is incredibly sensitive to temperature and altitude.[10] The diverse landscape and climate of Chiapas and Oaxaca create the ideal conditions for Arabica to grow. A region's ability to grow this variety of coffee is incredibly important because it is a much higher quality coffee as opposed to the other common variety, Robusta (*Coffea canephora*).[11] Both states primarily focuses efforts towards growing *Arabica* variety coffee.

In Chiapas, the Agriculture sector accounts for 41% GDP and employs a significant percentage of the population.[12] The agriculture sector employs about 31% of the population. Chiapas is the largest producer of coffee for Mexico, with both the highest number of producers and the largest cultivated area (Figure 1).[13] Oaxaca is the third largest producer for Mexico.[14]

[8] Davis, A. P., Gole, T. W., Baena, S., & Moat, J. (2012). The Impact of Climate Change on Indigenous Arabica Coffee (Coffea arabica): Predicting Future Trends and Identifying Priorities. *PLoS ONE*, *7*(11), e47981. https://doi.org/10.1371/journal.pone.0047981

[9] International Coffee Organisation. (2018). International Coffee Organization - Trade Statistics Tables. Retrieved from http://www.ico.org/trade_statistics.asp

[10] Ovalle-Rivera, O., Läderach, P., Bunn, C., Obersteiner, M., & Schroth, G. (2015). Projected shifts in Coffea arabica suitability among major global producing regions due to climate change. *PLoS ONE*, *10*(4). https://doi.org/10.1371/journal.pone.0124155

[11] Davis et, al. 2012

[12] Secretaria de Economia. (2018). *Mexico Investment Map - Chiapas*. Retrieved from http://mim.promexico.gob.mx/work/models/mim/Documentos/PDF/mim/FE_CHIAPAS_vfi.pdf

[13] Folch, A., & Planas, J. (2019). Cooperation, fair trade, and the development of organic coffee growing in chiapas (1980-2015). *Sustainability (Switzerland)*, *11*(2), 1–23. https://doi.org/10.3390/su11020357

[14] Blackman, A., Albers, H., & Crooks, L. (2005). Deforestation and Shade Coffee in Oaxaca, Mexico. *Discussion Paper*, 12.

State	Number of Producers	%	Number of Hectares	%
Chiapas	178,928	35.4	253,986	36.4
Oaxaca	104,432	20.7	133,392	19.1
Veracruz	88,782	17.6	140,409	20.1
Puebla	48,421	9.6	68,101	9.7
Guerrero	21,869	4.3	41,746	6.0
Hidalgo	34,868	6.9	24,224	3.5
San Luis Potosí	18,336	3.6	14,586	2.1
Nayarit	5266	1.0	16,674	2.4
Jalisco	1231	0.2	2230	0.3
Colima	836	0.2	1314	0.2
Tabasco	1039	0.2	870	0.1
Estado de México	1305	0.3	862	0.1
Querétaro	317	0.1	230	0.0
TOTAL	505,630	100	698,626	100

Figure 1. Number of coffee producers and total extension of coffee cultivation in Mexico (2011)[15]

The coffee sector of Chiapas is known for using ecological techniques during cultivation; 14% of coffee farmers, 19% of coffee land.[16] Chiapas has the largest diversity of microclimates which is one of the reasons why growing coffee has been so successful. The Sierra Madre de Chiapas region of Chiapas is rich in biodiversity as well as allowing for easy access to ecosystem services that help to support the growth of Arabica coffee in the region.[17] Oaxaca has a unique variety of ecoregions as well that allow for coffee to grow in different areas. Most coffee is grown in the mountainous region as well as along the coast of Oaxaca. Typically, Arabica coffee can only grow at higher elevations but, Oaxaca is a unique exception to this because of microclimates that exist along coastal regions, Arabica coffee can grow at lower elevations.[18]

[15] Folch 2019
[16] Folch 2019
[17] Schroth, G., Laderach, P., Dempewolf, J., Philpott, S., Haggar, J., Eakin, H., … Ramirez-Villegas, J. (2009). Towards a climate change adaptation strategy for coffee communities and ecosystems in the Sierra Madre de Chiapas, Mexico. *Mitigation and Adaptation Strategies for Global Change*, *14*(7), 605–625. https://doi.org/10.1007/s11027-009-9186-5
[18] Skygge, J. Personal Interview, September 10, 2018.

This is a great asset for Oaxaca because it means that there is diversity in the places where coffee can grow and can offer a useful adaptation for growing coffee as climate change continues to threaten the crop.

The majority of coffee is grown on small plot family farms. It is common for families to grow other crops in addition to coffee due to the fact that coffee only yields fruit once a year.[19] For families with small parcels of land, this low frequency of yield means that there is not a sufficient amount coffee from the yield to be able to sustain themselves and their families off of what the plant can produce. A strategy that is practiced in both states is the utilization of cooperatives. Selling coffee as a collective gives farmer the opportunity to sell their coffee to better markets.

Socio-economics and demography

The National Institute of Statistics and Geography published a report called the Demographic Panorama of Mexico in 2015 and found that the median age for Chiapas is 23 with 51.4% of the population being women. For Oaxaca, the median age is 26 with 52.4% of the population being women. In Chiapas, 57.2% of the population has a basic level of education and only 28% of the population having a higher education than that. 58.6% of the population in Oaxaca has a basic level of education and only 27.7% of the population having a higher education above the basic level.

Chiapas is home to more than four million inhabitants which makes up about 4.4 percent of the national population.[20] It is one of the poorest states in Mexico and has one of the largest populations of indigenous people. Oaxaca is also one of the poorer states in Mexico and over

[19] Collier, G. A. (1994). *BASTA! Land and the Zapatista Rebellion in Chiapas*. Oakland, California: The Institute for Food and Development Policy.
[20] Secretaria de Economía. (2018). *Chiapas Population*. Retrieved from http://mim.promexico.gob.mx/work/models/mim/Documentos/PDF/mim/FE_CHIAPAS_vfi.pdf

65% of the population is indigenous making it the states with the largest indigenous population in all of Mexico.[21] There are sixteen different indigenous groups within Oaxaca with the Zapotec and Mixtec being the two largest groups.[22] Figure 2 shows the distribution of indigenous populations in Mexico. It is clear to see the largest indigenous populations are concentrated in the southern region of Mexico with Oaxaca, Yucatán, Quintana Roo, Campeche and Chiapas being the states with the greatest indigenous populations.[23]

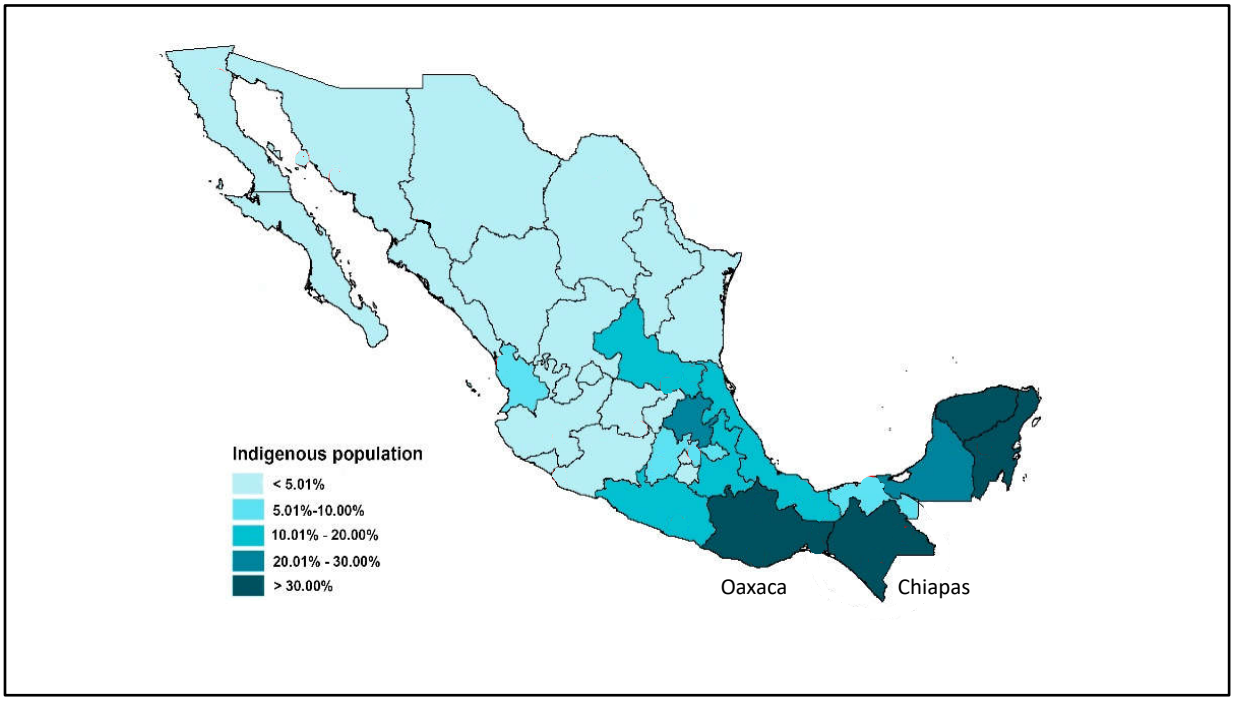

Figure 2. Indigenous population throughout Mexico with Chiapas being represented in the circle. Data from CDI (*cedula)*[24]

[21] Instituto Nacional de Estadística y Geografía. (2015). *Panorama sociodemográfico de México - 2015*. Retrieved from http://www.inegi.org.mx.
[22] Stephen, L. (2013). *We are the face of Oaxaca: Testimony and social movements*. Duke University Press.
[23] Instituto Nacional de Estadística y Geografía. (2015). *Panorama sociodemográfico de México - 2015*. Retrieved from http://www.inegi.org.mx.
[24] Folch 2019

With such a large indigenous population, there have been many occurrences of these groups partaking in large movements to advocate for rights and fair treatment. In Chiapas in 1968 indigenous people from different groups created a manifesto objecting to extreme poverty in their communities. From there, this persuaded the church to promote the idea of liberation. In 1974, the governor of Chiapas, Manuel Velasco Suárez, asked Bishop Ruiz to hold an indigenous congress. There were more than 1400 delegates from more than 500 communities of indigenous groups and saw the impact on both the social and political scale.

> The demands voiced by the delegates focused on illiteracy, diseases caused by malnutrition, the lack of basic services and infrastructure, the lack of credit or support from government agencies, and the suspension of subsidies for the production of basic grains. The delegates concluded that self-organization was the only way to overcome the situation of marginalization and oppression.[25]

In Oaxaca, large indigenous movements have taken place in protest of poor treatment of indigenous people as well as for fair and equal pay for indigenous workers.

Climate Change

The Intergovernmental Panel on Climate Change (IPCC) has predicted increased temperatures, an increase in drought, a decrease in precipitation and extreme weather in Mexico.[26] These changes will have lasting impacts on water, forests, and biodiversity. The agriculture sector for all of Mexico will be greatly impacted as well.[27] The coffee sector is incredibly sensitive to the impacts of climate change. It is estimated that there will be between

[25] Folch 2019
[26] IPCC, 2014: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Barros, V.R., C.B. Field, D.J. Dokken, M.D. Mastrandrea, K.J. Mach, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L.White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 688.
[27] IPCC 2014, pg. 1462

38% and 89% decline in areas that are suitable for coffee production.[28] In Chiapas, the story is no different, climate change is threatening coffee production all over the state. Since Arabica coffee is so sensitive to temperature and altitude, climate change is leaving these coffee crops in a very vulnerable position. Arabica coffee growth is closely tied and dependent on temperature, as climate change continues to increase temperatures in Chiapas where this coffee is grown, there is a risk of lower production and the potential that it will no longer be able to grow there in the future.[29]

The threat of climate change is not only a concern for coffee as a crop but also for those whose livelihoods depend on its success. With coffee, there already exists stress for farmers because of fluctuations associated with the global coffee market. Climate change and its impacts on coffee will continue to amplify these fluctuations which will have a direct impact on coffee farmers. For Chiapas, the long history of coffee production and its importance for smallholder livelihoods, and the strong linkages between land use and environmental conservation finding a way to produce coffee in a way that takes climate change into account is incredibly important.[30]

Like Chiapas, the coffee sector in Oaxaca is also being impacted by climate change. Rising temperatures are making it difficult for the current coffee to continue to grow. In Figure 4**,** climate research has mapped out the places where Arabica coffee will eventually be pushed out because of climate change. In the black box are both Chiapas and Oaxaca meaning that both states are at risk of losing the ability to grow Arabica coffee in the future.

[28] IPCC, 2014 Part A
[29] Ovalle-Rivera et al. 2015
[30] Schroth et al. 2009

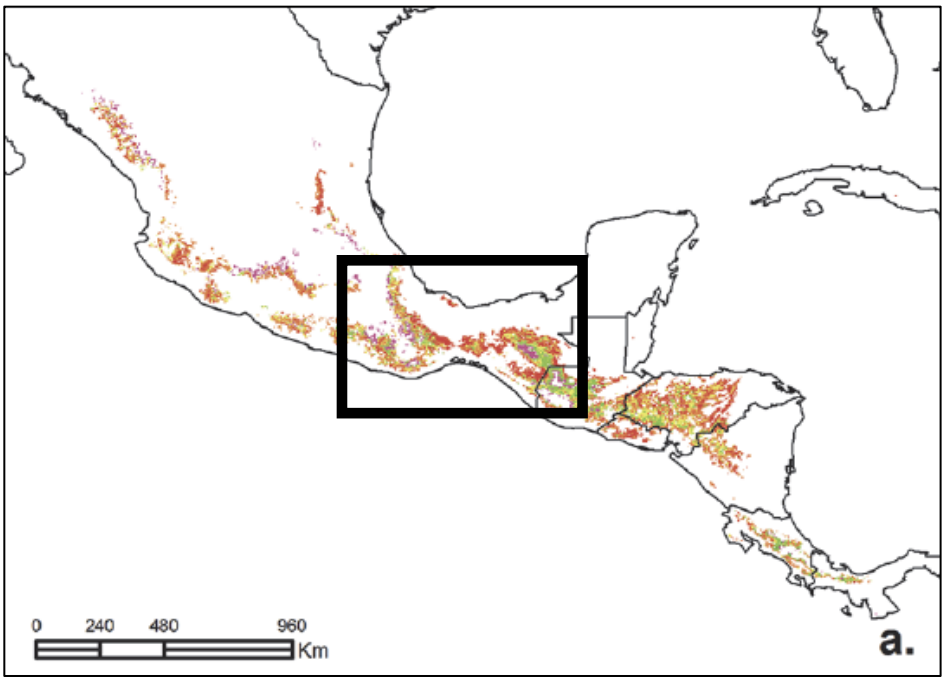

Figure 4. Climate Data of Arabica coffee regions and impact from climate change. Chiapas and Oaxaca are in the black square.[31]

However, as mentioned before, Oaxaca is in a unique situation as it's geography and diversity of regions creates micro-climates which allows for the Arabica coffee to grow in regions of lower elevation. However, the threat of climate change and the coffee sector will have a negative impact on the people and communities who produce it.

Interesting Comparison

Chiapas and Oaxaca are two states connected by many similarities. Geographically they are neighbors. In terms of demography, both states have large and influential indigenous populations who have both leveraged their presence to incite change within their communities. Both states have invested in the production of coffee focusing their efforts to growing Arabica coffee, a high-quality variety coffee bean. But this investment in growing coffee has brought with it the threat of climate change which will have damaging effects as it continues to target the

[31] Ovalle-Rivera et al. 2015

coffee industry. However, each state has taken different approaches to the actions they have taken to address the threat of climate change. In Chiapas, both local and international organizations are focusing efforts towards coffee conservation and adaptations while in Oaxaca, there are only international NGOs. Figure 5 is a timeline of key events in both states in terms of indigenous movements and climate actions.

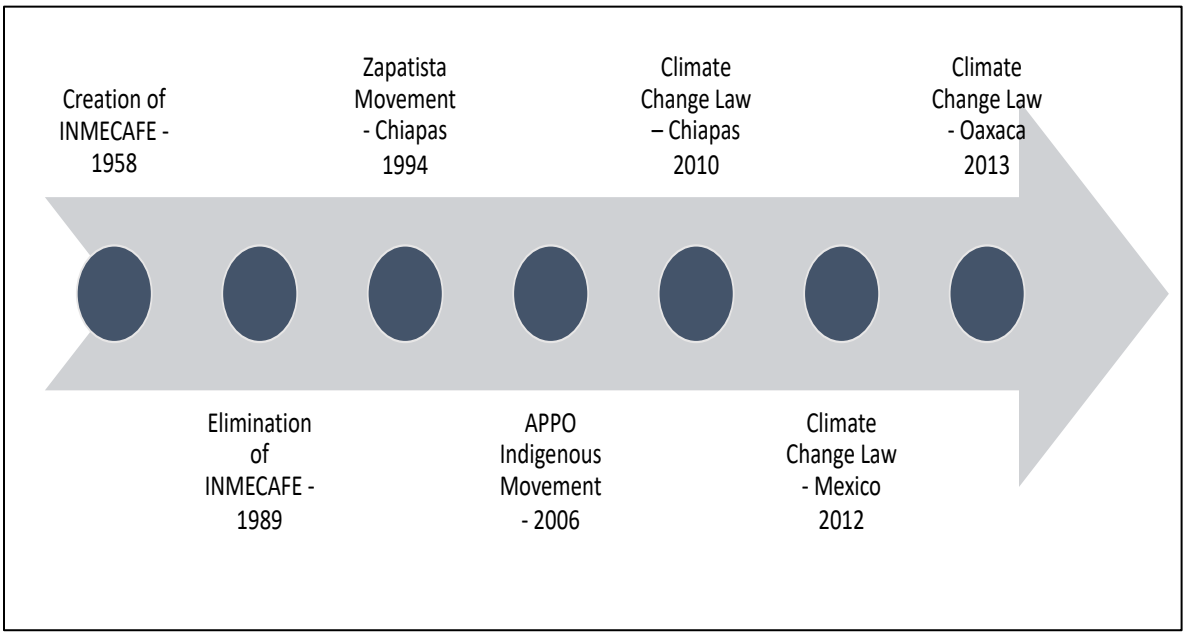

Figure 5. Timeline of key events in Chiapas and Oaxaca, Mexico

Focusing on climate change laws, it is clear to see that the timing of when each state passed their law draws a major distinction between the two states. Chiapas passed a climate change law three years before Oaxaca passed theirs. The subsequent sections of this paper will take a deeper look into the factors that have contributed to the different actions that each state has taken in response to climate change and the protection of the future of coffee. The literature review will focus on three key themes that will help to set up the lens through which the analysis of both states' actions. A comparative analysis of each states coffee sector, state-society dynamics, and indigenous politics will help to answer the question of why there is a difference in the actions that each state has taken for climate change.

2. Theoretical Framework

Coffee and Power in Central America

The demand for coffee grew over time, so did its ability to be used as a vehicle for power and influence. 600 billion cups of coffee are consumed every year [32] making it one of the world's top commodities. Because coffee has become such an important cash crop, those who control it have been able to leverage the power that coffee provides to influence society and governments. Coffee arrived in Central America in the early eighteenth century with colonization. Settlers brought coffee with them to Central America because of the growing demand for coffee and the ideal growing conditions. Central America provided the perfect climate and soil conditions for growing for *Arabica* coffee specifically which is the highest quality of coffee and is the most sought after of all of the coffee varieties. Throughout Central America, coffee began to shape the ways the state-society dynamics. As coffee began to become more profitable as a crop in these regions, coffee elites were able to leverage their influence with municipal governments to activate resources for coffee. This is significant because this action to expand coffee cultivation was taking place at the municipal level rather than the national level. The influx of revenue from the growing coffee sector meant that several sectors benefited from its success. It became the primary source of foreign exchange.

> The overall patterns of direct rule by coffee barons exhibits a crescendo of direct participation in national governance from the 1850s to a peak during the 1880s - precisely during the period of state building.

[32] The Sustainable Coffee Challenge. (n.d.). The Path to Agricultural Sustainability Starts with Coffee (Conservation International). Retrieved from https://www.conservation.org/stories/sustainable-coffee-challenge/Pages/overview.aspx

By 1900, most of Central America's coffee states were run by coffee elites or had become institutionalized under its guidance.[33]

Coffee and Power - Mexico

Coffee first arrived in Mexico around 1785 however, coffee didn't spread to small farms until after the Mexican Revolution in 1920.[34] Coffee first was introduced in the state of Veracruz and then in the Soconusco region of Chiapas at the end of the eighteenth century; toward the end of the nineteenth century.[35] Mexico is one of the ten largest global producers[36] and a major producer of organic coffee for the world.[37] Of the 31 states of Mexico, only 12 produce coffee (Figure 6) with Chiapas, Veracruz, Oaxaca, and Puebla being the four largest producers for Mexico. Together, these four states produce close to 80 percent of Mexico's total output.[38] Coffee remains as the fifth-largest crop in terms of cultivated area and is the source for over 3 million jobs.[39]

[33] Williams 1994
[34] Hoffman 2018
[35] Renard, M. C. (2010). The Mexican coffee crisis. *Latin American Perspectives*, *37*(2), 21–33. https://doi.org/10.1177/0094582X09356956
[36] Folch 2019
[37] History of Coffee in Mexico | Equal Exchange. (n.d.). Retrieved from https://equalexchange.coop/history-of-coffee-in-mexico
[38] Snyder, R. (1999). *Institutional adaptation and innovation in rural Mexico*. Center for US-Mexican Studies, University of California, San Diego.
[39] Renard 2010

Figure 6. Map of coffee growing regions in Mexico taken from the World Atlas of Coffee.

The majority of farms in Mexico are smallholder farms (Table 2). Coffee in Mexico has closely been tied to the interests of international business and private parties with the support of the government.[40]

Table 2. Characteristics of the Coffee Sector in Mexico

Coffee Farmers in the Southern States	52 percent of all economically active individuals depend on coffee production.
Coffee Farm Profiles	66% Small-scale producers (>10 hectares) 45% plots of less than 5 hectares
Farmer Demographics	65% of producers are indigenous

[40] Renard 2010

Coffee became more institutionalized in the 1940s and 1950s resulting in the creation of the National Mexican Coffee Institute (INMECAFE) in 1958.[41] INMECAFE was created after World War II to help regulate the coffee sector for Mexico by providing resources to support the industrialization of coffee. This institute allowed for the government to regulate and control the industry.[42] The main objective of INMECAFE was to provide technical assistance to farmers and financial credits. It was Mexico's representative at the International Coffee Organization (ICO, the crop's only international commodity organization.[43] Its job was also to remain in compliance with the International Coffee Agreement which was the international treaty between coffee countries of producers and consumers. It also established the objectives and framework that the International Coffee Organization functions under.[44] The rapid expansion in production and land dedicated to coffee expanded as a result of this institution and in some areas, production increased by almost 900 hundred percent.[45]

> At the local level, the state promoted the creation in each *comunidad* or *ejido* of the Unidades Económicas de Producción y Comercialización (Economic Units of Production and Commercialization, or UEPCs). Even though they were not a legally recognized entity, they brought together the coffee producers in each locality and were in charge of scheduling production, receiving inputs and credits from INMECAFE, planning the harvest, selling the coffee to INMECAFE for processing, and paying producers for the coffee delivered. The UEPCs were the mechanism through which INMECAFE promoted

[41] Eakin, H., Tucker, C., & Castellanos, E. (2006). Responding to the Coffee Crisis: A Pilot Study of Farmers' Adaptations in Responding to the coffee crisis: a pilot study of farmers' adaptations. *The Geographical Journal*, *172*(2), 156–171.
[42] Renard 2010
[43] Folch 2019
[44] International Coffee Organization Website http://www.ico.org/show_faq.asp?show=4
[45] Hoffman 2018

> a technological package based on monoculture and the use of chemical inputs for soil fertilization and for the control of weeds, pests, and diseases.[46]

INMECAFE was dismantled in 1989 after President Carlos Salinas de Gortari announced that the Mexican government would no longer control the coffee market in order to keep in accordance with structural adjustment policies from the World Bank and other international financial organizations. The decision to terminate INMECAFE resulted in the absence of regulation, a major drop in coffee prices, national and international exporters filing for bankruptcy, absence of credit and the government's decision to withdraw from the coffee sector. Things like fertilizer that had been free through INMECAFE were now being charged to farmers as international coffee prices fell. Power returned to private businessmen and intermediaries which replaced national exporters. The power balance of coffee shifted from the farmer to the elites as was seen in the building of the coffee sector in Mexico. Some of the world's largest coffee firms are located in Mexico and have created a type of oligarchy that most coffee farmers have no way of fighting for better access to markets.[47] Several other attempts to replace INMECAFE tried and failed to reactivate the coffee sector.

In 2001, the Association of Coffee Producing Countries (ACPC) had a meeting to improve the international quality of coffee in an attempt to increase quality and consumption globally. More low-quality coffee was coming out of Mexico and meant lower prices for farmers which meant that farmers we unable to maintain their crops in the way that they needed to. The goal from the ACPC and the ICO was to have five percent of low-quality coffee taken off of the market and destroyed. Mexico's response was to create the Programa de Retiro de Café de Baja Calidad (Low-Quality Coffee Withdrawal Program), established by presidential decree in

[46] Folch 2019
[47] Renard 2010

December of 2001. “Fiscal resources would be employed to finance the destruction of low-quality coffee. Exporters who would deliver this coffee would take a maximum of 2 percent off the buying price for producers.”[48] However, the Asociación Nacional de la Industria del Café (ANACAFE)[49]opposed the program as large corporations like Nestlé that controlled larger percentages of the market would no longer be able to continue their practices of using lower quality Mexican coffee in the instant coffee. With the emergence of new technology, the mixing of low-quality coffee with higher quality varieties has been more feasible because these technologies make it so that the final taste is the same and the difference is negligible. In recent years ANACAFE has obtained permits from the Ministry of Commerce in order to buy lower-quality South American and Vietnamese coffee. They justify the need by saying, “they cannot access sufficient amounts in the months preceding the harvest” which means that help to drive coffee prices lower. Since most small-scale coffee farmers are unable to compete in this large industry world, many of them have turned to selling their coffee in their own coffee houses or have invested into the organic fair-trade coffee world which can offer better prices and protect farmers from market fluctuations.[50]

Civil Society in Mexico

Francis Fukuyama describes civil society as interests’ groups trying to divert public resources to their favored causes. He says that civil society serves to balance the power of the state and to protect individuals from the state’s power.[51] The manifestation of collective action can look different depending on where it takes place. In Mexico specifically, societal outcomes

[48] Renard 2010
[49] ANACAFE represented the industries that manufacture coffee for national consumption
[50] Renard 2010
[51] Fukuyama, F. (2001). Social capital, civil society and development. *Third World Quarterly*, *22*(1), 7–20. https://doi.org/10.1080/713701144

that occurred were driven by three areas: co-production between state and social actors, co-production between external and local societal actors and independent mobilization from below.[52]

> Mexico is living through a time of political uncertainty. The democracy so recently achieved appears weak before the threat of organized crime, powerless before the political strength of the old union and peasant corporate organizations, unable to produce an efficient government, and captured by political parties that make instrumental use of democratic institutions for the sake of their own private interests.[53]

Understanding the dynamics of the interactions between the state and society can help to explain the social capital gains and losses throughout Mexico's history.

Mexico's democracy went through a time of authoritarian rule when a single party remained in control for decades. From 1929 - 2000 the Institutional Revolutionary Party (PRI) was completely in control of almost all aspects of the Mexican government. President Lazaro Cardenas was in office from 1934-1940 and is responsible for broadening the state's role in the economy as well as introducing social reforms that were intended to complete the promises that were made post-Revolution. These reforms consisted of land reforms and provided a career path for individuals who were loyal to the party.

> Groups with access to the state apparatus (political bosses, the labor aristocracy, large-scale quasi- monopolistic enterprises, the establishment media, government employees, peasant communities aligned with the PRI, etc.) benefited from a broad array of state subsidies. Groups without this access (owners of small and medium-size businesses,

[52] Fox, J. (1996). How does civil society thicken? The political construction of social capital in rural Mexico. *World Development*, *24*(6), 1089–1103. https://doi.org/10.1016/0305-750X(96)00025-3
[53] Olvera, A. J. (2010). THE ELUSIVE DEMOCRACY: Political Parties, Democratic Institutions, and Civil Society in Mexico. *The Latin American Studies Association*, *45*(2010), 79–107.

professionals, non-union laborers, urban marginals, peasants in villages not favored by the PRI, consumers, etc.) paid the direct and indirect costs of these subsidies.

The continued success of the PRI party resulted in corruption and patronage which benefited governing elites and bureaucrats. The presidency benefited greatly from this regime as well. Even though reelection was not an option, the president exercised free power during their time in office not mention that they were able to reward those closest to them and handpick their successor. "Presidents could thus stamp their imprint on Mexican history, steal enough money to assure themselves comfortable retirement, and then step down without fear of reprisal against themselves or their ill-gotten property."[54] Lawson (2012) states that there are three factors that made the Mexican regime "perfect". The creation of the image of liberal-democratic institutions and networks helped to isolate the opposition, the concentration of authority into one system, and the institutionalization of the transfer of power.

The regime eventually lost its strong-hold as the Mexican population began to expand. People were becoming more literate and educated. The expansion of communication and the growth of the service sector created new social classes that were not associated with the PRI party. Little by little the structure of the PRI party was under attack as people became unhappy with overextension of power and the party's inability to support the economy after a major financial crisis in the 80s. The election of President Carlos Salinas in 1988 saw a small shift in PRI doctrine. Salinas sought an accord with the National Action Party (PAN) in order to pass a series of constitutional amendments that eliminated a lot of the key most elements of PRI doctrine and shifted towards market-oriented reform policies. This type of shift in priorities is also what sparked the major coffee crisis in Mexico as mentioned in the previous section.

[54] Lawson, C. (2012). Mexico's Unfinished Transition: Democratization and Authoritarian Enclaves in Mexico. *Mexican Studies/Estudios Mexicanos*, *16*(2), 267–287. https://doi.org/10.2307/1052198

"Economic reforms like privatization and the negotiation of the North American Free Trade Agreement signaled the abandonment of the country's nationalist development model." By the early 1990s PRIs legacy was ending and there was a strong push to establish what party would replace it. In 1997 and 2000, Mexican voters selected their representative in a fair and free election.[55] In 2000, an opposition party candidate, Vicente Fox, won the presidency for the first time since PRI came into power. The Mexican Congress moved towards a multiparty and seats were divided among the major parties of the time rather than just one. This was all the result of collective action against the one-party control.[56]

Despite the shift away from the one-party control on the national level, but the one-party regime still had a stronghold on a subnational level. This phenomenon of the continued prevalence of subnational undemocratic regimes along with a democratic national government is known as, "regime juxtaposition". In Mexico, the existence of this juxtaposition can be seen all over Mexico and is more prevalent in some states rather than others. Figure 7 shows all of the states in Mexico from 1997-2006 and their levels of democracy.[57]

[55] Lawson 2012
[56] Shefner, J. (2008). *The Illusion of Civil Society: Democratization and Community Mobilization in Low-Income Mexico*. *Penn State University Press*. Penn State University Press. https://doi.org/10.1177/009430610903800557
[57] Giraudy, A. (2010). *The Politics of Subnational Undemocratic Regime Reproduction in Argentina and Mexico*. *Journal of Politics in Latin America* (Vol. 2).

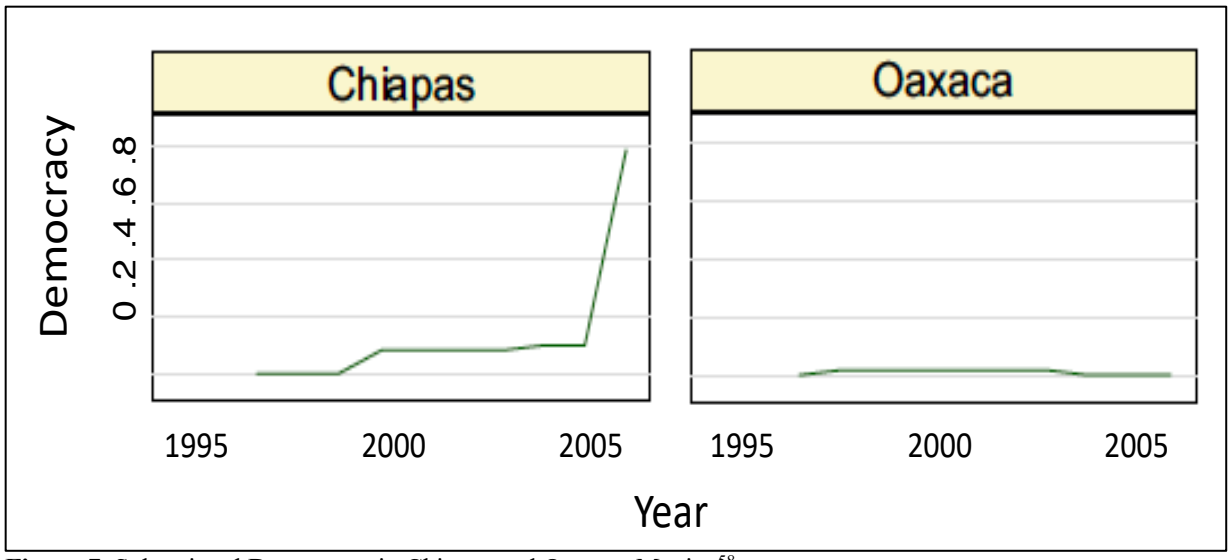

Figure 7. Subnational Democracy in Chiapas and Oaxaca, Mexico[58]

It is clear to see from the figure that the level of democracy at the subnational level are very different from state to state. It is particularly interesting to pay close attention to the difference in the levels of democracy in Chiapas and Oaxaca. This stark contrast in levels of democracy plays a key role as to why both states have different strategies for addressing climate change and the protection of the coffee sector.

The Role of NGOs

Fox (1996) states that there are three conceptual building blocks that help to support the development of social capital. They include political opportunities, social energy and ideas, and the processes of "scaling up" local representation and bargaining power. Focusing on the "scaling up" option specifically, the presence of Non-governmental Organizations (NGOs) can be an asset and a hindrance for building social capital and collective action. NGOs and other institutions exist to provide links between civil society and the state and can offer support in instances when individual needs cannot be met by typical governmental pathways. "Domestic

[58] Giraudy 2010

NGOs bypass their state and directly search out international allies to try to bring pressure on their states from outside. "NGOs will often step in during cases of campaigns for human rights, indigenous rights, environmental issues as well as other causes that require the participation of people and resources".[59] NGOs in these situations are able to connect networks of people with resources that may not have been available without the support. But there has been some tension that supports that idea of how effective and necessary support from foreign entities can be in times of crisis. There is one side that believes that at times it hurts more than it helps, "Aid has little leverage or capacity to steer domestic political processes in a different direction, and if it does attempt to do so, this often produces distorted partial results. "There is the other opinion that aid is what allows for governments to function, expand, control and implement their objectives.[60]

Indigenous Politics

Indigenous history has been wrought with conflict and challenges. Colonization brought with it the attempted elimination of indigenous culture through the promise of citizenship rights for acceptance of homogeneous mestizo cultural.[61] However, indigenous activism has been alive and active in Latin America for a long time. Scholars in the past believed that due to all of the atrocities that indigenous people have dealt with throughout their history, it was not likely that they would mobilize nationalist movements and would ultimately disappear and assimilate. However, the 1960s and 1970s marked a major shift in activism for indigenous people. They began to use international forums, human rights laws, and international conventions to bring

[59] Keck, M. E., & Sikkink, K. (1998). *Activists Beyond Borders: Advocacy Networks in International Politics*. Cornell University Press.
[60] Uvin, P. (1998). *Aiding Violence: The development enterprise in Rwanda*. Kumarian Press.
[61] Hale, C. (2004). Rethinking indigenous politics in the era of the "indio permitido". *NACLA Report on the Americas*, *38*(2), 16-21.

attention to their aims. They were directly confronting the issue of marginalization and poverty and advocated for the importance of their culture. "To neglect the diverse early movements in which indigenous communities were involved is to miss important transformations in Latin American political life."[62]

It is important to note the important role that mass media has played in helping to create a spotlight for these indigenous causes and activist movements. Newspapers, documentaries, the internet, and televisions have all played a role in creating public awareness of indigenous activism.

> Coverage has chronicled Mayan involvements in Guatemala's war and the peace process, focusing on the excavation of clandestine cemeteries that bear witness to the violence directed at rural families. [...] Just as quickly, the attention skips to indigenous vigilante attacks on their neighbors who support the Zapatista rebels in Mexico and the betrayal of indigenous activists in Ecuador's 2000 coup, only to return to Guatemala with the exposé of the Central Intelligence Agency's involvement in the military's human rights abuses during their civil war.

Indigenous groups have been able to fund-raise, circulate newsletters, and organize international conferences via the internet to help to share information about their culture.[63]

Throughout Mexico's history, there have been instances of collective action being used as a way to incite change. With such a large indigenous population, there has been a long history of repression as most state actors have used force to deny them the opportunity to scale up and form organizations of sufficient scale to defend their interests. Indigenous populations have been

[62] Warren, K. B., & Jackson, J. E. (2003). *Indigenous Movements, Self-Representation, and the State in Latin America. University of Texas Press*. Austin. https://doi.org/10.1353/lag.2005.0013
[63] Warren 2003

able to survive in Mexico because of their ability to maintain traditions of horizontal cooperation, reciprocity, and self-help. “For more than two decades, indigenous organizations have been coming together from below and then been dismantled from above, as competing state actors have pushed for both outcomes.”[64] Mexico has had a long history of indigenous activism especially in the regions where the indigenous populations are high. The ability of these communities to maintain their horizontal cooperation has ensured their longevity as well as their ability to come together for a cause.

Institutionalist Analysis

This research will be utilizing the methodology of comparative institutional analysis focusing specifically on the relationship between civil society and the state. This method which Theda Skocpol says is “polity-centered” allows for a better understanding of state government structures and history as well as the network of groups in civil society working to influence policy outcomes. I will be using the lens of coffee and power dynamics, state-societal dynamics and indigenous politics as a way to answer my research question that is seeking to understand why Chiapas and Oaxaca have made different decisions about actions towards climate change and coffee preservation. By using this theoretical framework, I will be able to draw conclusions that will better explain the outcomes that have been observed. [65]

[64] Fox 1996
[65] Lichbach, M. I., & Zuckerman, A. S. (2009). *Comparative politics: rationality, culture, and structure*. Cambridge University Press.

3. Data Analysis

Coffee and Power

In Meso America and Mexico, coffee created silos of power separating those with from those without. Tensions manifested themselves between land owners and coffee elites as well as between farmers and the state. With the elimination of INMECAFE, many farmers were left without government support for which they had been accustomed to. The decisions that coffee farmers made in the wake of these changes demonstrates the different in reactivity and the capacity that each state has for resilience. The following case will look specifically at the ways in which coffee and power have functioned in both Chiapas and Oaxaca as well as the adjustments that farmers have made in times of adversity.

Chiapas

In the 1800s coffee became a valuable commodity for Chiapas and transformed the economic landscape. Investment in coffee was possible because of the ability for ships to transport raw materials and food to the northern Atlantic ports. Chiapas was an ideal location for growing coffee because of the rich landscape and soil. The mountainous region, in particular, became the base for where most coffee was grown.[66] The demand for coffee continued to grow over time as did the land area devoted to growing coffee in Chiapas. The introduction of INMECAFE helped to create a stronger presence throughout the state and saw coffee production triple from the 1950s into the 90s.

The elimination of INMECAFE hit small farmers the hardest because these neoliberal liberal reforms meant that the services and benefits that they depended on from the government were gone. Now, these small farmers had to compete in the global market. Small farmers in Chiapas had a few different responses to these drastic changes. Some with strong community ties

[66] Collier 1994

were able to create formal structures based on tradition and kinship or religion. Others changed their practices and attempted to remain independent of external demands. NGOs played a large role in this shift towards autonomy for small farmers. These organizations helped to support the demands of farmers for better work conditions and salaries as well as *sujetos de créditos* that would provide farmers with small loans to support productions practices. Farmers wanted control over all stages of production and commercialization of their products.[67]

In 1989 when coffee prices dropped, farmers using technologies were hit the hardest and many of their farms had to foreclose and their equipment was confiscated by the banks. Organic farmers took a hit financially but were able to survive because of the boom in the organic coffee market. A lot of conventional farmers made the transition to organic coffee because of the boost in the market and were supported by organic certification institutions from other countries. These institutions helped to get many small farmers back to a place where they were stable again.[68]

Another strategy that farmers used was to create groups, the creation of the National Union of Autonomous Regional Peasant Organizations (Unión Nacional de Organizaciones Regionales Campesinas Autónomas, UNORCA) in 1985 helped to support the mission of small farmers to gain control of the sector. Coffee became a very important part of UNORCA in the 1980s and 1990s. In Chiapas, there were several of these groups that were created and were successful in responding to the coffee crisis. Indígenas de la Sierra Madre de Motozintla (ISMAN) was founded in 1987 and created an alternative marketing avenue that bypassed the middle man. Their goal was to be an organization "of Service not Business" that focused on using only biological agriculture methods that would ensure better quality products that were environmentally conscious and better for the health of the cooperative members. In the 1990s,

[67] Otero 2013
[68] Otero 2013

ISMAN was the most successful organic coffee cooperative in Chiapas as a result. MutVitz (Hills of the Birds) is another example of a cooperative formed in Chiapas as a result of the coffee market. This cooperative was formed after the Zapatista movement, a massive indigenous movement that will be explained in greater detail later. The goal of the cooperative was very similar to ISMAN in that they wanted to cut out the middleman and export directly. Through extension work, they were able to train many of the farmers in organic practices and were able to export directly. This cooperative also helped to support the transition from conventional coffee farming to organic farming that was more profitable for farmers.[69]

Coffee cooperatives like ISMAN and MutVitz, became more widespread throughout Chiapas starting in the 1980s as a response to the institutional and economic crisis in the coffee sector. As time went on, coffee cooperatives began to grow in popularity seeing the largest increase in the number of cooperatives in the 1990s (Figure 8).

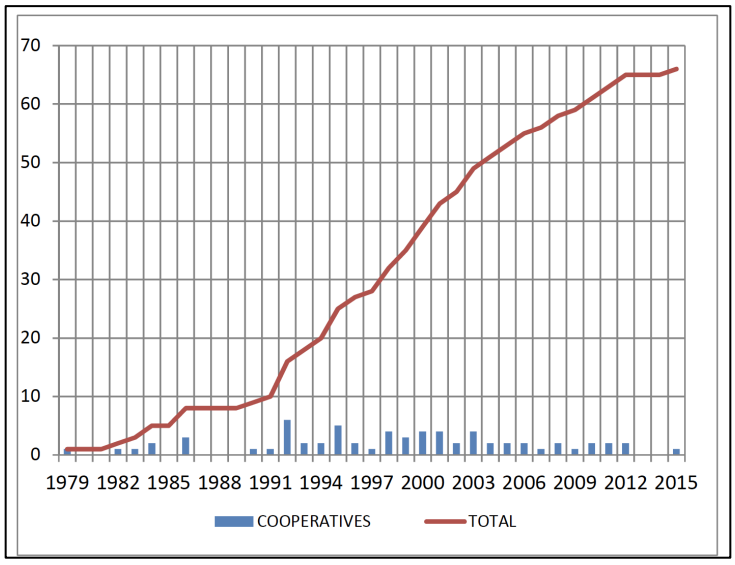

Figure 8. Timeline of Coffee Cooperatives over time in Chiapas, Mexico.[70]

[69] Otero 2013
[70] Folch 2019

The creation of cooperatives allowed for farmers to negotiate better prices for their coffee as well as allowing individuals to collectively produce more coffee as well as capitalizing on the tradition of community life, which aided the adoption of cooperative rules.[71]

In 2015, Chiapas passed a law to create the *Coffee Institute of Chiapas.* "The Coffee Institute of Chiapas is a public agency decentralized from state public administration, with juridical personality and own patrimonies, autonomy administrative, budgetary, technical, of management, of operation and execution for the development and promotion of coffee in the state."[72] The mission of this institute is to promote and strengthen the sustainable development of coffee in Chiapas. Through sustainable technologies, they hope to create a more competitive market for coffee farmers of Chiapas. Today, Chiapas is the most important state for coffee production in Mexico.

Oaxaca

Like Chiapas, coffee took root in Oaxaca because of the ideal conditions of soil and climate in Oaxaca. In the second half of the nineteenth century, land converted to grow coffee. The Coast and the Southern Highlands are two of the most important areas for coffee growing in Oaxaca. During the 1930s and 1940s, land was consolidated and created a divide between famers with large plantations and farmers with small parcels of land. In regions like Chatinos,[73] coffee production saw a success in the 1970s as demand on the international market continued to grow. State government of Oaxaca has also played a unique role in the production of coffee over time. In 1875, governor José Esperón signed a decree that promoted coffee production by making

[71] Folch 2019
[72] Chiapas, G. de. (2015). LEY QUE CREA EL INSTITUTO DEL CAFÉ DE CHIAPAS.
[73] Chatino is located in the southeastern region of Oaxaca.

investors exempt from paying taxes on any money invested in coffee production. This benefited larger plantations over small ones. In 1946 the state government created the Consejo Nacional de Café[74] that had minimal influence on the coffee sector and was later replaced by INMECAFE. By 1988 a vast majority of small farmers were part of the National Peasants' Confederation (CNC). However, the fall in coffee prices had severe consequences for the coffee sector in Oaxaca.[75]

As a result of the changes in coffee prices due to the suspension of INMECAFE, land that had been devoted to coffee had dropped from 189,300 hectares in 1991 to 180,374 in 1995. The absence of INMECAFE and the liberalization of the coffee market meant that farmers who incredibly vulnerable to fluctuations in supply and demand. Different organizations formed in response to the change in the management of the coffee sector including the creation of the Statewide Coordinating Network of Coffee Producers of Oaxaca (CEPCO) in 1988. In 1990, Governor Heladio Ramírez López pushed for the unionization of small farmers and passed a law to support the expansion of coffee agriculture. Oaxaca's response to the coffee crisis and the elimination of the INMECAFE was to build new sets of institutions that were controlled by the state government.[76]

The coffee sector in Oaxaca took a long time to recover after the coffee crisis but was able to recover because of their investment in local run cooperatives and institutions. Today, the coffee sector is continuing to grow, and Oaxaca's state government has included the proposal for a sustainable coffee law that would protect the coffee sector. Unlike Chiapas, which has an

[74] National Coffee Council in English
[75] Snyder 1999
[76] Snyder 1999

established coffee institute, Oaxaca currently does not have one but has made the creation of law regarding coffee for the state of Oaxaca part of their State Development Plan.

Civil Society

The massive change in political power within Mexico was a push from below to eliminate the long-time authoritarian regime. Despite the changes on a national level, the authoritarian regime still had a strong hold in several states within Mexico meaning that the PRI party still had influence and control in Mexico. This continued control among states shaped civil society and the relationship between state and society. Looking historically at the relationship between the state and civil society, indigenous politics and the presence of NGOs a diverging story emerges where one state became more democratic while the other was unable to change the authoritarian influence.

Chiapas

Before Mexico's independence, Chiapas was governed by the colonial administration of Guatemala and eventually became part of Mexico in 1824. Despite changes in slavery laws, indigenous people remained as slaves for many years. It wasn't until the 1930s that indigenous people in all regions were fully aware of their rights and able to act upon them. The decade following the Revolution was met with conflict between the indigenous people, elites and state government. For example, the government was required to offer schooling for the indigenous people, however it was seldom carried out and was low quality.[77]

During the 1930s, the administration under president Lázaro Cárdenas redistributed large amounts of land that eventually provided indigenous communities with their own land. This gave the state the ability to garner support from the indigenous communities. This factionalism also

[77] Otero 2013

ensured that the potential for organized dissidence among the indigenous communities would be less likely as each farmer would be more concerned with maintaining strong ties to the national government rather than other indigenous communities. The impact that the Great Depression had in America trickled down to Mexico and drastically reduced foreign capital that the government had depended on for supporting development. Cárdenas administration implemented a plan to invest in new domestic industrialization that would rely of indigenous and peasant labor to produce cheap food. The government took land that had become inactive as a result of the loss from the Great Depression and turned the land over to *ejidos.*[78] "On the ejidos, peasant families could join to farm collectively if necessary." Indigenous and peasant groups were encouraged to take advantage of the opportunity to take back land occupied by private estates and plantations. The choices that Cárdenas made helped to establish the state government as an ally to the indigenous and peasant populations. He was able to leverage the support that he gained to help get votes for the governor election. After winning the election in 1936, he made Erasto Urbina as the director of the Department of Indian Protection. Urbina spoke some of the indigenous languages as well as having strong connections with indigenous communities. During his time as director of the Department of Indian Protection, he established an indigenous run workers union that made it easier to recruit labor for the coffee plantations. Loyalty to the ruling party was established through these various actions.[79]

In the 1940s and 1950s however, there was mixed support for indigenous people that only continued to deteriorate over time. During the 1960s and 1970s, the oil sector took over the southern regions of Mexico. Oil became nationalized in the early 1960s which allowed for the country to develop petroleum for their internal needs. The rising price in oil in 1972 resulted in

[78] Lands vested in peasant communities by agrarian reform. Reference: Collier, G. A. (1994).
[79] Collier 1994

Mexico making the decision to export their oil. Greater development of oil across Mexico took place and the increase emphasis and focus on oil meant that other sectors like agriculture experienced setbacks and thus forcing many farmers to migrate to other cities. However, in 1982, oil prices declined and left unable to pay back the large amount of external debt that they had accrued. In an attempt to restructure their economy, Present Carlos Salinas de Gortari pushed forward the signing of the North American Free Trade Agreement (NAFTA) and to dismantle agrarian reform. These actions were a major catalyst for the Zapatista uprising.[80]

Zapatista Uprising

In January of 1994, armed indigenous people of the Zapatista Army of National Liberation took over Mexico in protest of the signing of the NAFTA deal. Chiapas was an unlikely setting for a movement like that of the Zapatista because Chiapas had been home to longtime supporters of PRI since the 1930s and those who protested were from the most remote parts of the state. The election of President Carlos Salinas de Gortari initiated major changes within Mexico and was a major driver of the Zapatista movement. Indigenous people of Chiapas felt that the direction that he was moving Mexico, was going to leave them behind.[81]

The signing of the NAFTA deal was intended to help support the Mexican economy through free trade with the United States and Canada, however, the arrangements that were made would result in Mexican farmers being at a disadvantage due to the disparities in technology and infrastructure. Another grievance was that government decided to leave pricing up to the international markets rather than being determined by the federal government as it had been in the past. The plans and policies that were put into place to support the agriculture sector by offering lower prices were in fact only helping merchants rather than rural producers or

[80] Collier 1994
[81] Collier 1994

consumers. It became clear that the extension of neoliberalism into Mexico was beginning to breakdown rural society from the pressure of new reforms. This pressure was mounting in Chiapas and a wave of change was on the cusp of spilling over.[82]

The Zapatista movement was unique in its kind as it focused its attention on the impacts of neoliberal economic reform by highlighting the negative impacts on indigenous people. The Zapatista movement made it possible for other indigenous people in Mexico to demand their participation in decision making on national and local levels.[83] Women became key actors in this movement as well and advocated for better education, more ownership over reproductive health, as well as fair treatment.[84] Referring back to Figure 7, Chiapas shows a significant increase in democracy over time. This movement helped to redefine democracy and the definition of citizenship for Mexico.[85] Chiapas became a leader in pushing for more democracy in a country that still remained until authoritarian control. This shift away from the large political party control paved the way for more reform and more progressive actions in the future.

Oaxaca

The election of Heladio Ramírex López as governor of Oaxaca in 1986 had all of the appearances of a new state-societal dynamic. He spoke of wanting to focus on supporting the social sector rather than supporting the local elites as other leaders had done in the past. Despite attempts to promote economic development for Oaxaca's rural communities, his projects and policies were, "top-down efforts to revitalize corporatists mechanism of state-controlled interest representation." Many of the organizations that were created to help support the rural

[82] Harvey, N. (1998). *The Chiapas rebellion: The struggle for land and democracy*. Duke University Press.
[83] Harvey 1998
[84] Millán Moncayo, M. (2006). Indigenous women and Zapatismo: new horizons of visibility. *Shannon Speed, Rosalva Aída Hernández Castillo y Lynn Stephen, Dissident Women. Gender and Cultural Politics in Chiapas, University of Texas Press, Austin*, 75-96.
[85] Harvey 1998

communities served as a way to secure funds for corrupt National Peasants' Confederation (CNC) leaders. These state-sponsored organizations paid corrupt officials while also blocking the expansion of producer organizations that were of the opposition. Ramírez's organization campaign was just another way to reassert state control over rural groups.[86] The creation of the CEPCO was an unexplained occurrence as it was an institution that was created by independent producers despite the state's efforts to stifle independent institutions from being created in the first place.[87]

In 1995 and in 1997 the constitution and state's electoral code were reformed to allow indigenous people to choose their local authorities through the *usos y costumbres* legislation.[88] This would mean that they would have the ability to select local leaders using traditional election practices rather than using the parties and ballots system. *Usos y constumbres* was the first legislation of its kind of give indigenous people agency.[89] While this was a progressive move for the indigenous people of Oaxaca, it still didn't provide total liberation and served as a mechanism to subdue people in hopes of preventing a massive uprising like the Zapatista movement in Chiapas.

Asamblea Popular de los Pueblos de Oaxaca, APPO – Oaxaca

The people of Oaxaca have had a long history of collective action, particularly in the last three decades of the twentieth century. In December of 1973, there was a massive movement of tens of thousands of people who protested for better treatment of bus drivers. In January of 1974, that same group mobilized in opposition to the rise in bus fare. It has been said that the

[86]Snyder 1999
[87]Snyder 1999
[88] MUÑOZ, A. A. (2005). The Emergence and Development of the Politics of Recognition of Cultural Diversity and Indigenous Peoples' Rights in Mexico: Chiapas and Oaxaca in Comparative Perspective. *Journal of Latin American Studies*, *37*(3), 585–610. https://doi.org/10.1017/s0022216x05009478
[89] Eisenstadt, T. A. (2011). Usos y Costumbres and Postelectoral Conflicts in Oaxaca, Mexico, 1995-2004: An Empirical and Normative Assessment. *Latin American Research Review*, *42*(1), 52–77.

emergence of the Asamblea Popular de los Pueblos de Oaxaca (Popular Assembly of the Peoples of Oaxaca, APPO) movement can be linked to this long history of social movements.[90]

In order to understand how APPO first formed, a closer look at the history of teachers in Oaxaca is important. There has been a long history of protesting and social activism as far back as the institutionalization of education in Oaxaca post-Mexican Revolution. Teachers were part of the Sindicato único de Trabajadores de le Ensenañza (Sole Union of Education Workers) and signed an agreement with the state government in 1937 after a protest that moved all teachers under the secretary of federal education. In 1943, the Sindicato Nacional de Trabajadores de Educación (National Union of Education Workers, SNTE) was founded and ultimately came to represent all educational workers in Mexico's primary and secondary schools. "SNTE quickly followed in the pattern of other government unions: the organization came to be very closely tied to government policy priorities and was part of a well-oiled vote-delivery machine that was formally affiliated with PRI." December of 1979, the Coordinadora Nacional de Trabajadores de la Educación (National Council of Education Workers, CNTE) was created by teachers in Chiapas who were looking for a 30% pay raise as well as wanting to democratize SNTE. CNTE was made up of bilingual indigenous teachers whose ability to mobilize and maintain regional autonomy allowed them to be successful during that time period as well as today.

> "In CNTE teachers developed tactical and organizational strategies that were integral to the success […]. These included "the use of the direct strike (that the law prohibited for workers of the state), the exercise of union autonomy at the delegational and sectional levels, respect for the collective decisions taken in assemblies, an emphasis on mobilizations at the base more than personal relations of leaders as a way to pressure for

[90] Stephen 2014

their demands, and the development of a politics that links with other groups and social movements"

In Oaxaca, CTNE is primarily made up of indigenous teachers who have benefited from the services and support the CTNE has provided. In the 1980s and 1990s, CTNE was a significant advocate for getting indigenous teachers the same pay as non-indigenous teachers.

There are a lot of events that led up to the large APPO movement in August of 2006. Seccíon 22[91] of SNTE after holding one of their annual strikes asking for higher teacher salaries, Governor Ulises Ruiz Ortiz negotiated a significant raise with the leadership of Sección 22 in 2005. Teachers saw a 23 percent raise which the union deemed a major success. However, other demands were not met, and more demonstrations took place in the hopes that it would pressure the government to meet their demands. Their attempts were met with little success. On May 1, 2006, the group gave the state government their new list of demands that teachers should have the highest level of salary as well as more teacher positions, longer hours in secondary school as well as other materials and opportunities for teachers and poor students. Expecting an expedited response as they got in 2005, the governor instead started a media campaign against the movement and its leaders. In response, Sección 22 went on strike on May 22. Governor Ruiz Ortiz continued to deny their demands and went as far as to offer less than the salary he had offered in the previous year. He also threatened to withhold wages from teachers for every day that they were outside of the classroom. The group responded by threatening to call for the removal of the governor and when no action took place, teachers took action and camped out in

[91] Sección 22 is a teacher's union of Oaxaca that is part of SNTE and also CNTE. It is a group working to democratize education and the authoritarian politics and practices of SNTE.
Reference: Arenas, I. (2015). The Mobile Politics of Emotions and Social Movement in Oaxaca, Mexico. *Antipode*, *47*(5), 1121–1140. https://doi.org/10.1111/anti.12158

the Oaxacan city center. On June 1, the governor responded to the union's action with more threats.

> We ask that the State Government suspend the salaries of those teachers who persist in being absent from their teaching positions . . . that the Instituto Estatal de Educación Pública de Oaxaca [IEEPO] proceed to deliver notifications of unemployment to those teachers who continue in labor strike and. . . . declare that their contracts are rescinded without any responsibility of the federal and state government . . . and that the national security forces, within the scope of their competence, proceed without delay to evict people from the public roads and federal buildings, establishing protection to impede further occupation attempts.

The union group then called for a *megamarcha* to call for the governor to be put on trial for his actions. His response to this was to threaten to take away salaries from teachers if they did not return to their classrooms. The group of teachers did not return to their classrooms but instead organized a larger march that included other organizations, unions, and other communities that had been repressed by governor Ruiz Ortiz.[92]

The conflict between the teachers of Sección 22 and the state government culminated on June 14th, 2006 when governor Ruiz Ortiz attempted to remove all of the teachers who were camping out in the Zócalo by force. People were severely beaten, and many were arrested without being charged. Tear-gas bombs were used by riot police who also burned all of the teacher's belongings. Many people were left wounded after the attempted eviction. Sección 22's reaction to this was to reorganize another march. During this meeting, the group known as APPO was formed. By July of 2006, APPO had control over the city center and began to occupy

[92] Stephen 2014

government buildings as well as commandeering buses. They also formed a police group that would detain and try people who opposed APPO. From July to August, the situation in Oaxaca continued to grow more violent. August 10, 2006 marchers were shot at and killed spreading fear of the stakes and consequences of participating in the movement. In September, Oaxaca became militarized. October 27, a reporter named Bradley Will was killed as well as three other Oaxacan people. Three days later, more than 4,000 soldiers from the Federal Preventive Police arrived in Oaxaca and detained, wounded, and killed many people. Meanwhile, the Governor made a statement on tv in Mexico City stating that all was fine in Oaxaca, yet he and his staff couldn't be in Oaxaca.[93]

In October of 2006, APPO and Sección 22 participated in La Iniciativa Ciudadana de Diálogo por la Paz, la Democracia y la Justicia en Oaxaca (The Citizens Initiative for Dialogue for Peace, Democracy, and Justice in Oaxaca) along with other indigenous authorities, organizations, NGOs, academics and local businesses. This was an attempt to start negotiations between the state government, APPO and the federal government of Mexico. November 10–12 the Constitutive Congress of APPO took place in Oaxaca City with representatives from different regions of Oaxaca in attendance. The purpose of this meeting was to create a structure of representations that would work to address and serve the interests of the people. There was also a plan of action created for getting Ruiz Ortiz out of office and forming a new form of government, "The new government would hold accountable those responsible for human rights violations, torture, repression, and assassinations, and help to strengthen popular governance in the state, as well as nationally and internationally." Governor Ruiz Ortiz eventually left office

[93] Stephen 2014

and the state government later formed a special commission focused on investigating human rights abuses. "The Oaxacan social movement gave birth to a new set of political subjects."[94]

Non-Governmental Organizations

For this research, the presence or absence of NGOs is a key indicator of a state progress towards climate resilience and policy development. In Chiapas, large international NGOs like WWF-Mexico, Conservation International and the Rainforest Alliance all work on Climate Change adaptation programs for the coffee sector. There are also many local organizations and cooperatives that focus climate change efforts towards coffee as well. In 2015, a law was passed to create the Coffee Institute of Chiapas[95] which works with local cooperatives, organizations and partners with International organizations to support the sustainable development of coffee for Chiapas.[96] In Oaxaca, WWF- Mexico and the Rainforest have projects in Oaxaca, however none of the nine local environmentally based organization are working on climate resilience for coffee.[97]

Taking a step back and thinking about the roles that International NGOs have in developing countries, a lot of their work attempts to bring resources to developing countries to support their needs. This can happen through direct transfer of goods or money or it can also be through capacity building. There is an attempt by these organizations to engage local organizations, cooperatives, leaders to create organizations or support them in their work. The fact that there exists a stark contrast between the NGO presence within these two states further implies that democracy and state-societal dynamics play a key role in developing the capacity for

[94] Stephen 2014
[95] Primero Capítulo, T. I. (n.d.). *LEY QUE CREA EL INSTITUTO DEL CAFÉ DE CHIAPAS*. Retrieved from http://www.poderjudicialchiapas.gob.mx/forms/archivos/5f1eley-que-crea-el-instituto-del-cafe-de-chiapas.pdf
[96] Instituto Del Café de Chiapas - Inicio. (n.d.). Retrieved from http://www.incafech.gob.mx/
[97] Volunteer Oaxaca. (n.d.). Retrieved from http://www.volunteer-oaxaca.com/

adopting climate resilience programs. The fact that only international NGOs are working in Oaxaca demonstrates that there is still a lack of urgency by the government and people of Oaxaca on implementing more resilient climate methods for the coffee sector. It indicates that the NGOs still have limited reach in Oaxaca.

Institutional Evaluation

The divergent histories in Chiapas and Oaxaca have shaped the state-societal dynamics. We see the outcomes of these differences in policy decisions about climate change. Focusing on the impacts that climate change is having on the coffee sector specifically demonstrates the differences in each states capacity to adapt and develop resiliency. In Oaxaca the continued top-down structure has persisted for a long time while in Chiapas, a shift to bottom-up dynamics were made possible by the Zapatista movement. To better understand the impacts that these histories and dynamics have had on these two regions, we will now focus our attention to an analysis of both states' climate change laws as well as the presence of NGOs both international and local towards the efforts of climate change and coffee conservation.

In response to the risk of climate change, Chiapas passed its *Law for Adaptation and Mitigation of Climate Change* in December of 2010. However, the work to get this law passed started back in 2008 with the creation of Climate Change Action Program for Chiapas (PACCCH) that was developed by state-level decision makers with the support of the State's Ministry for Environment and Natural History, several universities, NGOs, with financial support from the British Embassy and other donors. The motivation behind the creation of PACCCH was due to the lack of attention at the national level on climate change issues. After PACCCCH identified that climate change legislation was needed, Governor Juan Sabines Guerrero requested a draft of a law. After revisions by the Governor's legal counsel, the law was

submitted to the State legislature was quickly passed.[98] The law itself is in accordance with the United Nations Framework Convention for Climate change as well as the *General Climate Change Law of Mexico*. Although, Mexico passed its *General Climate Change Law* in 2012. Starting in Article 1, the climate change law is asking for the obligatory action and cooperation of the State and the municipalities in creating public policies "for adaptations to climate change and mitigation of its adverse effects, to protect the population and to contribute to sustainable development."[99] The responsibility of this law and the actions that it is requesting fall primarily to the municipalities. In Article 11 and 12, municipalities are being asked to incorporate climate change policies and strategies into their development plans while also creating adaptation and mitigation policies. It is also up the municipalities to monitor and evaluate the implementation of climate change programs and projects. The law puts a lot of attention on following standards set by Mexico as well as international authorities. The law called for a Climate Change Action Committee which was reestablished in 2017. The pollical party in power during this time was the Ecological Green Party of Mexico.[100] More progressive collective action and democracy have allowed for this party to take power in this state during this time. Major environmental policy and changed were made as a result of this party being in power.

The *Climate change Law for the State of Oaxaca* was passed in October of 2013. Oaxaca's law does not have the same story behind it that the law in Chiapas had. This law was mandated by the federal law that set the expectation that each state would create and pass their own climate change law. The climate change law in Oaxaca mirrors that of the federal climate

[98] Kehew, R. B., Kolisa, M., Rollo, C., Callejas, A., Alber, G., & Ricci, L. (2013). Formulating and implementing climate change laws and policies in the Philippines, Mexico (Chiapas), and South Africa: A local government perspective. *Local Environment*, *18*(6), 723–737. https://doi.org/10.1080/13549839.2013.818949
[99] Secretaría General de Gobierno, Jurídicos, S. de A., & Oficiales, D. de L. y P. (2015). Ley para la adaptación y mitigación ante el cambio climático, *Tomo III*, 1–18.
[100] Partido Verde Ecologista de México in Spanish

change law. This law is in accordance with the Federal climate change law of Mexico, *General Climate Change Law.* Like the *Law for Adaptation and Mitigation of Climate* in Chiapas, in Oaxaca, the law is requesting that the state, as well as its municipalities, participate in the implementation of policies for climate change adaptation and mitigation. The law asks for the creation of a State Action Plan for Climate Change much like the one that Chiapas implemented and utilized, however currently this program only exists on the States Development Plan and has not yet been organized. In article 2, Oaxaca plans to have their law be in accordance with not only the federal law but also with the UN Climate Change Action Committee.[101] It seems as though most of the plans or intentions that the law have been incorporated into the Development Plan for the state and will be implemented at a later time. Within their State Development Plan, there are several references to climate change and their state plans.[102]

5. Conclusion

Why do two states that are seemingly the same have such different approaches to adaptation and climate resilience? Patterns revealed through a historical analysis of state and civil society dynamics have produced the factors that have contributed to Chiapas emerging as a progressive and forward-thinking state in comparison to Oaxaca. Through the lens of the impacts of climate change on the coffee sector, allowed for this divergence in action to become more pronounced. Chiapas has led the country in climate change action through the passing of the climate change law in 2010 while Oaxaca followed suit in 2013. Chiapas has the support of both local and international NGOs working towards climate resilience for the coffee sector while Oaxaca only has the support of international NGOs. Chiapas became an anomaly in Mexico as

[101] Secretaría General de Gobierno. (2013). Ley de Cambio Climático para el Estado de Oaxaca, 1–38.
[102] Del Estado de Oaxaca, G. (2013). Plan Estatal 2013-2016.

bottom-up, grass-roots initiatives had great success in influencing and changing the local and in some cases federal power dynamics. Democracy grew out of indigenous collective action and created a space where Chiapas has been able to take more progressive actions for things like climate change. Oaxaca has remained behind due to the long history of continued top-down, authoritarian control. The government's ability to maintain this control over Oaxaca helped to ensure that the next "Chiapas" would not come out of Oaxaca. Looking through the lens of civil society, indigenous politics and state and societal dynamics creates a more holistic understanding of the ways in which each piece comes together to explain the outcomes. All of these factors together explain the differences that we see within these two states and helps to explain the potential for change in the future.

Implications

Looking at the impacts that climate change has on the coffee sector in Chiapas and Oaxaca, Mexico revealed a pattern that could only be explained through a historical analysis of civil society, indigenous politics and the relationship between the state and society. Climate change became an external force that made apparent differences in the capacity to adapt to climate change. What has become very clear through this research is the importance of both climate and historical data to help inform decision makers. The ways in which organizations, development groups or government agencies chose to propose climate initiatives in these two states would look very different. Despite similarities, each state has their own history that shapes the way that society functions. These processes are independent of one another despite the closeness. For climate initiatives to be effective, there must be an understanding of a region or state as a whole in order to make decisions as focusing on one aspect would limit the ability for effective change.

Future Research

There are other states in Mexico that have similar profiles to that of Oaxaca. It would be interesting to add a state like Yucatán, that has a large population of indigenous into the comparison to see if there are any other factors or similarities that emerge that might further explain that ways that democracy or a lack of democracy can shape the development of a state. It would allow for further understanding of the impacts that the lingering authoritarian regime has had on the southern part of Mexico and could help to explain why Chiapas was able to emerge out of this control while others have not. On a larger scale, this research could be applied in other places where large indigenous movements have taken place.

Understanding the impacts of climate change on livelihoods goes beyond an understanding of how climate change is impacting the natural world. It not only requires an understanding of how these changes directly impact those who depend on natural resources for their livelihoods but also the state-societal dynamics that determine the capacity for change to be enacted. Through this research we have seen that Chiapas has emerged as a leader in climate action because of the efforts of the indigenous people. Their ability to advocate for change has meant that coffee sector of Chiapas has a future in spite of climate change.

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