

Chapter 3

The Political Economy of Regulation: An Analysis of the Mexican Emission Trading System



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Abstract The chapter argues that the design of carbon pricing policies takes place as a sequential, negotiated process whereby specific constituencies have privileged access to shape policy design because they have high stakes in regulations. These groups, identified *ex ante* based on the political economy of regulation and a stakeholder approach, exhibit two characteristics: first, they are high-interest actors, as a change in the status quo would impose concentrated costs on them; second, they are high-power actors, since their resources and participation in the national economy make them a critical sector. Using theory-guided process tracing and the policy stages heuristics framework, the empirical analysis explores the policymaking process of the Mexican pilot emission trading system and discusses key features of its design.

Keywords Carbon pricing · Political economy · Stakeholder analysis · Policy Stages Mexico · Emission trading system

Introduction

Middle-income countries are at a crossroads between meeting their emission-abatement commitments and their growing energy demands, in a context where the destructive consequences of climate change are increasingly evident. For Mexico, an industrializing middle-income nation, the price of mitigation could represent 15% of the GDP by 2040 (Veysey et al. 2016), yet the impacts of climate change could be more costly. This conundrum begs the question of whether countries that rely on fossil fuel or emission-intensive industries are planning to meet their emission-reduction pledges.

The chapter hypothesizes that the introduction of carbon pricing policies (CPPs) takes place as a sequential, negotiated process whereby constituencies that profit

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from a fossil fuel-based economy influence policymakers to lower the stringency of CPPs, contingent on two characteristics. First, if a change in the status quo would impose concentrated costs on them (if they are high-interest actors), and second if their resources and participation in the national economy make them a critical sector (if they are high-power actors). The paper refers to this process as policy shaping, which, in a fossil fuel-based economy, tends to produce outcomes that lower the policy's mitigation potential. Using theory-guided process tracing (Falleti 2016), the empirical analysis explores the policymaking process of the Mexican Pilot Emission Trading System (pilot ETS) and proposes to use a stakeholder framework to identify *ex ante* the non-State actors with the interest and ability to *shape* the process.

Mexico was the first Latin American nation to tax carbon and to implement a cap-and-trade. This case resonates with other Latin American presidential and multi-partisan systems that currently price emissions and whose economies rely on emission-intensive sectors or fossil or mineral resources, like Colombia, Argentina, and Chile. The Mexican experience is also representative of the challenges and opportunities that nations seeking to implement ETSs—like Colombia, Chile, and Brazil—may find. The implications of tracing the patterns of public–private sector interaction matter, as all nations grapple with the concept of the cost of mitigation and the political and operative hurdles to reach efficient policy outputs that contribute to a fair de-carbonization.

This chapter contributes to the growing body of literature that explores the political economy determinants of national climate action (Fullerton 2011, Harrison 2015, Ervine 2017, Stevens 2021). By understanding climate change policies as political constructs embedded in structural dynamics, it provides criteria for an identification of stakeholders with the ability and resolve to shape CPPs. Further, it highlights the need to increase transparency to contribute to a transition to a low-carbon economy. The text is organized into four sections. Section “[Theory and Hypothesis](#)” discusses the theoretical framework and the hypothesis and section “[Method](#)” the methodology. The third section traces the pilot ETS, while the fourth draws lessons and closes with concluding remarks.

Theory and Hypothesis

Most environmental economists and political scientists agree that stakeholder engagement is desirable because it leads to legitimate policy outcomes and fosters private sector accountability (Starik 1995; Rodriguez-Melo and Mansouri 2011; Talley et al. 2016; Narassimhan et al. 2018). However, these analyses overlook the power dynamics of stakeholder intervention, which tend to produce outcomes significantly different from the optimal policy.

This chapter analyzes the policy process of the Mexican pilot ETS relying on the literature of the political economy of regulation (Stigler 1971; Posner 1974, 2013; Grossman and Helpman 1994, 2001). Since Stigler's pioneering work, *The Theory of Economic Regulation* (1971), academics have used terms like “regulatory capture”

to evidence that policies are more than a tool to resolve market failures and that, in fact, the policymaking process does not necessarily yield optimal results due to the influence of business groups that have high stakes in regulation and seek to create or maintain competitive advantages.

Theoretical additions have refined the overall approach and the concept of capture, noting that influence is not binary but a matter of degree (Carrigan and Coglianese 2016), that elected officials and bureaucratic agents face different incentives (Laffont and Tirole 1991), and that different arenas of regulation involve specific public–private interactions (Sprengel and Busch 2010). Although the postulates of economic regulation have been criticized for overstating the power of business, they still constitute the “type of research needed to equip decision makers” to make better regulation (Carrigan and Coglianese 2016: 10).

Following this literature, the chapter proposes that constituencies will lobby throughout the policymaking process of CPPs to lower the stringency of the regulation if they are:

- (a) High-power stakeholders (HPS), or constituencies with more resources and larger output sizes and
- (b) High-interest stakeholders (HIS), or those with more costs to bear after a change in the status quo.

As Stigler notes, the political process is not akin to an ordinary market, but far more complex, uncertain, and embedded in power relation (Stigler 1971: 12). Similarly, the contention here is not that stakeholders buy ineffective policies, but that actors with power and interest are able to shape policy outcomes, and that governments are responsive to the extent that they rely on these sectors. In this sense, this is not a categorical capture but a policy shaping process, whereby strategic calculations lead to varying levels of policy stringency. With these considerations, the sections below define the criteria to identify the entities that engage in this policy shaping, both HPS and HIS.

(a) *High-interest stakeholders*

Market-based mitigation policies have costly distributive implications because they entail resource reallocation and aim to change behaviors. A group has high interest in a policy if the instrument would generate concentrated costs or benefits, or if it changes a status quo of concentrated costs or benefits (Wilson 1974). The design of a CPP specifies who pays mitigation costs and how, but as a generality, emission-intensive sectors bear larger costs. When private actors estimate the costs of a potential CPP, they calculate significantly higher costs than government because the cost of capital is higher for private decision makers and they expect unpredictable variations in emissions (Mehling and Dimantchev 2017: 28). Furthermore, mitigation policies may decrease the competitiveness of emission-intensive sectors exposed to trading partners that do not price emissions. This phenomenon is called carbon leakage, whereby energy-intensive firms relocate to jurisdictions with laxer regulatory standards. The result is the same level of emissions but located in a different place.

Other sectors from the civil society, such as environmental organizations, are HIS as well, but they face more collective action issues because they advocate for dispersed benefits and lack the resources of industrial constituencies (Kraft 2017).

(b) *High-power stakeholders*

The analysis considers two types of power: resource mobilization and structural control. Structural power refers to a sector's relevance in the national economy or its participation in the Gross Domestic Product (GDP). Groups might not exercise structural power as direct pressure, but policymakers are aware that imposing burdens on critical productive engines can harm the economy by lowering the overall economic output and growth rate or creating unemployment. If the regulated sectors are critical for economic growth, governments may attempt to minimize the costs of CPPs and propose tax policies. In turn, structurally powerful actors tend to have more economic capital and the ability to organize into representative bodies, that is, resource mobilization power.

The empirical analysis in section “[The Pilot Emission Trading System in Mexico](#)” suggests that only the stakeholders that displayed high power and high interest concurrently (HPS and HIS) had access to policy shaping in the design of the pilot ETS. The following section discusses the process tracing method by which the narrative demonstrates a correlation between the voiced opinions of stakeholders and the policymakers' choices, as well as a change in the initial policy proposals after stakeholders' recommendations.

Method

Jurisdictions have mixed reasons for deciding to adopt CPPs, which include addressing climatic or financial vulnerabilities, domestic and international commitments, or a combination of these factors (Rabe 2008; Krause 2013). However, this chapter does not seek to explain why countries enact CPPs, but to outline how and why they implement policies that deviate substantially from a more ambitious design. The chapter proposes that HPS and HIS mediate within the causal chain to influence the outcome, making policies less stringent than the original formulation.

Using a theory-guided process tracing method (Falleti 2016), this chapter reconstructs one intensive policy process—the Mexican pilot ETS—which had transformative effects on the outcome of interest, stringency. Intensive processes initiate after the triggering cause and end before the outcome (Falleti 2016: 457). The empirical observables include records of meetings, roll-call votes, official documents, newspapers, and half a dozen semi-structured interviews with Mexican officials and industry representatives conducted from 2017 to 2019.

The narrative shows “the how” of lower stringency, finding answers in the distributive effects of CPPs. Timing and order matter in this approach and can ultimately

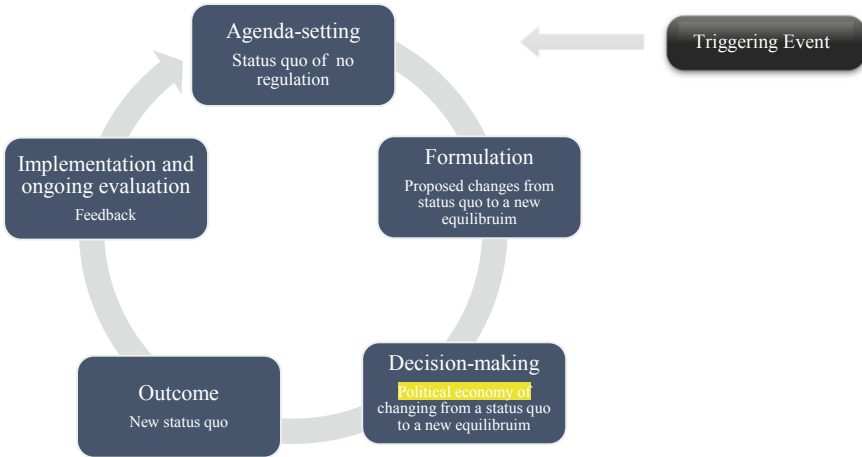


Fig. 3.1 Policy stages heuristic framework. *Source* Author elaboration based on deLeon (1999)

explain how power dynamics translate into lower stringency. Consequently, the narratives rely on the policy stages heuristic framework in Fig. 3.1 to assess each stage sequentially. The triggering factor may be endogenous or exogenous, yet the policy shaping process is inherently endogenous. The analysis considers the initial proposal as the most stringent design that a jurisdiction is willing to impose and traces the policy’s origin from the agenda setting stage.

Although critics argue that the stages framework overly simplifies and idealizes a policymaking world laden with power relations and belief systems (see Sabatier 1991; Colebatch 2006), the claim here is not that it has explanatory power, but that it constitutes a useful tool to guide the process tracing and potentially makes systematic comparisons. The stages heuristic framework has been extensively used in the policy analysis world since its introduction by H. Lasswell in 1956, helping to process a policy’s complexities more efficiently by assigning attention to each stage (Weible et al. 2012: 5). Although the terminology and number of stages vary widely across authors, the framework has helped create synergies with other fields like historical institutionalism (for example, in the use of the concepts of path dependency and feedback loops) (Howlett et al. 2014).

The Pilot Emission Trading System in Mexico

Projections estimate that Mexico can meet its emission-reduction targets using and profiting from well-designed carbon prices (Altamirano et al. 2016; McKinsey and Company 2013). Energy security needs, such as the increasing demand from industrialization processes and the growing population, have prompted Mexican governments to pursue energy reforms for decades. Additionally, governments have sought

to lessen the country's fiscal dependence on fossil fuels and, in turn, its vulnerability in a volatile international market. Different administrations have been aware of the dependence on US natural gas as a primary source of energy, as well as on crude oil revenues for a fifth of the country's total income (Secretaría de Hacienda y Crédito Público, henceforth SHCP or *Hacienda* 2017).

Mexico's primary emitters are the industrial, transportation, and electricity sectors, which contribute, respectively, 9%, 25%, and 26% to total emissions (INECC 2018). The subsectors within the industrial category that generate more emissions are construction, chemical, and steel industries (Canacero 2016). Under different scenarios that calculate the price of CO₂ necessary to reach abatement targets (including only a carbon tax or a hybrid system of a tax and an ETS), the energy and industrial sectors can more efficiently concentrate the costs of mitigation (Mehling and Dimantchev 2017: 36).

However, over a third of the Mexican GDP comes from industry, and the largest chambers and business organizations represent the manufacturing, cement, steel, and oil sectors. The following narrative, organized as policy stages, shows that these HPS were central in the policy shaping of the Mexican Pilot ETS.

(a) *Agenda-setting*

For over a decade, the international carbon bonds market has been an alternative for financing clean energy projects. Mexico is one of the main project recipients of projects within the United Nations' Clean Development Mechanism (CDM) and of other international projects. Outside the CDM, California invests in Mexican projects through certificates called Climate Reserve Tonnes (CRTs). Mexico also participated in cap-and-trade discussions in the context of NAFTA's Commission on Environmental Cooperation, but as a Non-Annex I country, its role was one of offset provider.

In 2016, the Secretariat of the Environment (SEMARNAT), the Mexican Stock Exchange (*Bolsa Mexicana de Valores* [BMV]), and its subsidiary MexiCO₂ signed an agreement to develop an ETS simulation as a tool to comply with the commitments of the Paris Agreement. The platform MexiCO₂ offers certificates of emission reductions as carbon credits in exchange of projects developed in Mexico, as well as a service by which companies can pay the carbon tax purchasing credits.

Prior to the announcement, the government took two fundamental steps that established the bases of cap-and-trade. First, the publication of the General Law on Climate Change (LGCC) in 2012, which included guidelines for developing mitigation instruments. Second, the creation of the National Greenhouse Gas Emissions Register (RENE) for facilities and companies in 2014. Furthermore, in 2015, SEMARNAT started a feasibility assessment of a mandatory system.

Different interviewees credit the deputy secretary of SEMARNAT, Rodolfo Lacy Tamayo, as the political entrepreneur who, as part of the "presidential inner circle," introduced a compliance carbon market into the agenda (Alarcón 2017; Escalona 2017; Muñoz Piña 2016). The idea, which arose from technical discussions on tools to

mitigate emissions, found international traction at the Partnership for Market Readiness (PMR), an international organization built around the World Bank's governance that supports the formulation and implementation of mitigation policies. Given the relative novelty of an ETS and its technicalities, SEMARNAT and the PMR launched a "simulation market exercise" (2017–2018) to familiarize the Mexican private sector with cap-and-trade systems, before the compliance market started.

(b) *Formulation and decision-making*

The experiences of formulating and approving the carbon tax in 2013 and the Energy Transition Act (ETA) in 2015 underscored the trade-off between stringency and feasibility, as well as the need to involve interested HPS in the decision-making process. However, unlike these pieces of legislation, the ETS was a policy program, so the executive would lead both the formulation and decision-making processes without debates in legislative committees or the floor, and without official records. Still, the Senate held fora where legislators discussed the future of cap-and-trade and voiced their desire to make the Environmental Commission permanent, since it only met intermittently (Comunicación del Senado, August 16, 2017).

Officials in different government bureaus usually decide to involve stakeholders from the outset based on strategic concerns related to feasibility given that the willingness of the entities that the ETS would regulate is essential for these systems to operate. Because in Mexico, firms can file a motion of *amparo*, preliminary negotiations with the high-interest and high-power stakeholders are fundamental to secure compliance. The *amparo* proceeding is a legal resource that protects citizens and entities against official mandates and procedures if they can demonstrate any violation of their rights, abuse of power, or unconstitutionality. The chances that a policy reaches enactment increase if key parties and the public sector reach a consensus in the formulation stage, so officials across the globe must choose between lowering the program's stringency or facing sabotage.

SEMARNAT created a Working Group that included representatives from the federal government and the private sector, without broader participation of academia or civil society. In their sessions, the group found "common ground on what are usually divergent positions" (International Carbon Action Partnership [ICAP] 2019a, b). In other words, although regulators had to make concessions, the stakeholder engagement was fundamental to make cap-and-trade a politically feasible alternative in Mexico.

Environmental officials anticipated legal obstacles by introducing a policy with high costs on stakeholders with structural power. Article 94 of the 2012 version of the General Law of Climate Change (LGCC) considered a voluntary carbon market as a possible strategy, but it did not warrant the establishment of a compliance market, a legal hurdle that concerned the agency. Interviewees affirmed that SEMARNAT could use a lax interpretation of the law's wording, arguing that while trading emissions was voluntary, the upper limit was mandatory (Interviewee 3, 2017), but that they favored amending the law in Congress. Finally, the amendments gained Senate approval in April 2018 and gave SEMARNAT the mandate to establish a compliance market.

In interviews during the formulation and decision-making stages, SEMARNAT representatives alluded to industrial security and the need to keep the discussions and the policy's design secret while affirming that the pilot would not operate under the same rules as the market (Nieto 2018). However, they acknowledged that the ETS would almost inevitably include a free allocation of permits to some industries including steel (Escalona 2017; Nieto 2018).

Moreover, SEMARNAT authorities admitted to a lack of communication with the SHCP, which presented potential challenges of interaction with the carbon tax. The transversal coordination of executive agencies is critical to avoid inefficiencies as jurisdictions add pricing mechanisms to the policy portfolio. In the Mexican context, coordination would involve at least three executive agencies, SEMARNAT, the Secretariat of Energy (SENER), and the fiscal SHCP. Their lack of communication formulating the ETS, evident to policymakers (Escalona 2017; Interviewee 1, 2016; Interviewee 3, 2017), raised serious concerns about policy interactions because it can result in weak price signals. SEMARNAT officials claimed that more rigorous coordination was not necessary because Secretariats know each other's position, "a commitment to reduce emissions at the lowest cost" (Escalona 2017). While Secretariat's relative independence prevents impasses within agencies, it might also result in a mitigation regime that inefficiently combines elements of price setting and quantity rationing.

Potential participants claimed that the costs of setting up the system were too high, that Mexico was not a large emitter globally, compared to the US and China, and that the ETS would lead to loss of competitiveness (Reboulon, November 14, 2017). Further, potential national and international participants of the market perceived that a new presidential administration could have a different take on climate change mitigation commitments from 2018 on. If indeed the personal closeness of a political entrepreneur to president Enrique Peña Nieto encouraged the development of the ETS, the replacement of this official could impair the costly efforts to set up a cap-and-trade with the president from an opposition party with an agenda that relies distinctly on fossil fuels, Andrés Manuel López Obrador.

The HPSs that were vocal about their discontent with the ETS were, predictably, energy-intensive industries. In general, Mexican industry has used the qualification of "revenue collection mechanism" as a criticism of carbon pricing policies in general, implying that the environmental objectives are an excuse to collect revenues. Another commonly reproduced criticism was that the final consumers would pay the price. For example, directives of one of the main steel consortiums, DeAcero, argued that an ETS would decrease productivity and result in overall market distortions, especially regarding salaries. The National Chamber of the Transformation Industries, CONCAMIN, echoed the "means to collect revenue" criticism and emphasized that consumers would pay the price (Reboulon, November 14, 2017). Industrial representatives could credibly threaten that the ETS would hurt the national economy, which, in turn, would damage the president's party, *Partido Revolucionario Institucional* (PRI) during 2018, an electoral year. Still, with the help of the German Agency for International Cooperation (GIZ) and the World Bank's PMR, SEMARNAT's expert

bureaucracy kept conducting several studies that provided an analytical basis for the ETS's design.

Peña Nieto's administration did not enact the cap-and-trade during its six-year tenure (2012–2018) and rescheduled the launching to 2020 when López Obrador would be in power. In October 2018, less than two months before the end of the presidential term, SEMARNAT published the draft of the system's preliminary rules, alongside the details of a consultation process. However, the process was soon thereafter suspended—and the rules taken down from the official webpage—to allow the incoming presidency to conduct the procedure (ICAP 2018a, b).

The new administration started a public consultation process that took place between March 2018 and May 2019 and published the preliminary rules in October 2019 without significant changes. Besides the regulations outlined in the following section, the preliminary rules established a public–private consultative committee that would serve as a technical and advisory body for consultation and would be comprised by invitation of SEMARNAT's Under Secretariat for Planning and Environmental Policy. The Committee's composition differentiates between two groups of stakeholders: those with a voice and vote during the discussions, and consultation partners who only have a voice. Groups that were both HPSs and HISs in the process constitute the former, while academics and civil society organizations, that is, groups that were only HISs, the latter. The committee was inaugurated in June 2020.

(c) *Outcome*

While legislators approved the carbon tax in two months, it took four years to enact the pilot ETS. In 2020, the system entered a pilot phase that allocates free credits and does not sanction non-compliance. The 2018 amendments to the LGCC approved the establishment of a compliance market under the condition that the pilot phase did not lead to “negative economic impacts for the participating sectors.”

The trial program will last 36 months and will consist, in turn, of two periods: A pilot phase (January 2020 to December 2021), and a transition phase (January to December 2022). The ETS is expected to have a real price signal in the operational phase in 2023, but the rules have not been established.

Different international experiences demonstrate that opposition to cap-and-trade can be addressed if formulators introduce flexibility in the ETS design, which makes it feasible, yet economically inefficient. Arguably, the elements in the design of the policy most crucial to both feasibility and efficiency are: (a) the cap, (b) the mechanism of permit distribution, and (c) the participants covered.

According to the preliminary rules, the trial program will cover the energy and industry sectors and participants will be the companies whose annual emissions have been equal to or greater than 100 thousand tons of emissions of carbon dioxide (tCO₂) in 2016, 2017, 2018 or 2019 (Diario Oficial de la Federación [DOF] 2019). Compared to other jurisdictions, Mexico opted for a conservative inclusion threshold, unlike California, which set the threshold at 25 thousand tCO₂, or Beijing's at 5 thousand tCO₂. With this threshold, the pilot ETS will cover the 308 firms responsible for around 96% of sectoral emissions and 45% of national emissions. Whereas a

larger number of entities is more conducive to market liquidity, most programs begin including only the largest emitters (such as industrial and power plants) since the inclusion of small emitters increases transaction costs (Butzengeiger et al. 2001).

Only direct carbon dioxide emissions will be covered during the trial program. By November 1st of each year, participants must submit a number of allowances to SEMARNAT equivalent to the emissions reported and verified from the immediately previous year. Participants must also present a report and a verification opinion regarding the emissions that they will report.

Regarding the level, a cap that is too high is problematic because it will not bring about the desired emission reduction. This leads, in turn, to an overallocation of permits. High caps and the subsequent overallocation of allowances can depress prices and further undermine the effectiveness of the program. A trajectory that is initially conservative can be consistently adjusted to achieve targets, which may imbue a sign of continuity irrespective of political and electoral calendars.

The political economy of permit allocation has been widely studied; while some argue that ETSs are part of the climate change mitigation toolbox only because they are subject to manipulation, others claim more categorically that permits are “constructed from political whole cloth” and distributed according to political, not technical criteria (Sagoff 2008).

Evidence supports the fact that most of the current cap-and-trade programs exist because their first phase entailed a free allocation of permits based on historical emissions, or grandparenting. For example, the overall cap of the first phase of the European Union ETS was set around 5% above their business as usual (BAU) levels, and sectors like cement were allocated 105% of their BAU emissions (McAllister 2009: 410; Weishaar 2014: 101; Ervine 2017: 9). Similarly, the ability to allocate free allowances “to address differential economic impacts” across industries, states, and Congressional districts was decisive for the implementation of the SO₂ cap-and-trade in the US (Schmalensee and Stavins 2013).

In most cases, there is some evidence that participants have advocated not only for free allocation, but also for a higher number of permits per firm. While interest groups have the right to access policymaking through different participatory mechanisms, the lack of transparency makes policy processes more prone to delays and blockage, and even raises suspicions regarding rent-seeking behaviors. Auctioning permits is considered the most efficient way to mitigate greenhouse gases, yet evidence also shows that most ETS participants oppose auctioning at least in the initial stages.

Mexico will allocate free permits at the beginning of the trial program based on the information reported to the National Registry of Emissions (RENE). However, SEMARNAT is in charge of implementing auctions from the second year of the pilot phase of the trial program, whereby regulated firms will be able to buy allowances. According to the preliminary rules, however, the inclusion of this mechanism is still “contingent on the behavior of the market.” Moreover, the rules include the creation of a secondary market, that is, transferring permits between regulated companies.

A question remains regarding a case in which the Mexican government did not meet its commitments, namely, whether it would be able to purchase emission allowances from other markets. One of the ways in which Peña Nieto framed the ETS

was to highlight its potential linkage to the California-Quebec ETS. In December of 2017, the government signed the “Declaration on Carbon Prices in the Americas” with Canada, Colombia, Chile, and the authorities of California, Washington State, Ontario, and Quebec, as an agreement to promote intra-regional carbon markets and a system of standardized prices in the framework of the One Planet summit in Paris. The signatories are committed to working together to strengthen the monitoring, reporting, and verification (MRV) systems of carbon emissions. The ultimate goal was a market linkage, taking advantage of the potential within the hemisphere. Even though the mention of linkage with this market was recurrent in the media, officials at SEMARNAT dismissed it even as a long-term goal (Escalona 2017; Interviewee 3, 2017), and assured that the cooperation with California has been strictly related to sharing technical expertise. A former SEMARNAT official affirmed that even if the Mexican market were ready, Californian market participants would be reticent to establish a linkage with a Mexican market that they fear will not endure political transitions (Interviewee 3, 2017).

(d) *Implementation and evaluation*

Monitoring, reporting, and verification of emissions will be done in accordance with the monitoring plan issued by SEMARNAT, as well as with the technical provisions established in the LGCC. During the pilot phase, emissions must be reported through the Allowance Monitoring System, an electronic platform whereby issued, transacted, and canceled. SEMARNAT must still determine how to present the verification reports.

During the trial program’s transition phase, SEMARNAT must establish the rules for the operational phase while considering the results of the program. However, if the agency does not issue the rules, the trial program’s rules will remain in place for another 6 months after the end of the transition phase (DOF 2019).

The transition to a market that sends an authentic price signal depends on these key pending regulations. Particularly, congress will have to amend the LGCC again in order to include enforcement mechanisms and sanctions. Implementation during the pilot phase will be decisive to keep developing the program, as it will highlight the challenges and areas of opportunity for the ETS, and reveal a different phase of stakeholder engagement. As Mexico expands its climate policies portfolio, HISs keep gaining experience and building networks. New influential groups are emerging as well, alongside the incumbent HPSSs, such as the private regulatory bodies needed to operate, administer, and oversee new markets.

Lessons Learned and Concluding Remarks

This chapter examined the policy process of making an emissions trading system in Mexico. It revealed the politicized nature of the formulation and decision-making

stages and provided criteria to identify *ex ante* the actors likely to lower policy stringency based on potential distributive implications, namely, high-interest stakeholders with high power.

Stakeholder engagement is a normalized and desirable practice in democracies, and indeed necessary to make carbon pricing politically feasible. However, the case suggests that policymakers interact with stakeholders selectively, prioritizing the engagement of actors that have both power and interest. Although high-interest actors like academia are involved in informative, participative, and networking processes, their voices are secondary in the design of emissions trading. High-power stakeholders (HPS) tend to be among the top productive forces, and have the resources to mobilize. This selective engagement creates opportunities for an unbalanced policy shaping, which, in turn, may weaken the energy transition's perceived fairness. Not only does unequal access to policymaking stymie mitigation goals, but it also renders a policy's legitimacy questionable, and does not contribute to the achievement of a just transition.

The interested HPS opposed the ETS initially, arguing a variety of market distortions, such as loss of competitiveness, carbon leakage, depression of wages, and the low reliability of renewables. These constituencies could credibly threaten to pass on the costs to the society, or harm a country's economic output, which gave them an undeniable leverage *vis-à-vis* regulators. Paradoxically, whereas the influence of high-power prospective participants weakens a policy, it also increases probabilities of enactment. The participation of structurally powerful sectors is critical because regulators need their compliance, and because their inclusion in the policy process fosters trust among parties. Even though emission-intensive sectors generally undervalue the social cost of carbon, pricing emissions is unfeasible without their input.

Emerging actors such as renewable power producers have the potential to influence the design of mitigation policies as well, yet Mexican society still needs to experience the benefits of renewables firsthand. Although environmental NGOs have grown in institutional capacity, visibility, experience, and international connections, they still lack the resources and national economic participation of industrial constituencies.

The case warrants caution about the fossil fuel and power industries, absent in these processes because the state monopolized them until late 2013. Mexican energy reform by which State-owned Pemex lost its monopoly in the sector, began restructuring the oil and electricity sectors. Beginning in 2017, private entities could produce their own gasoline brand, and from 2018 onwards, gasoline imports became tax-free. These changes may increase the complexity of the policymaking scenario as stakeholders with conflicting interests emerge and grow in power.

Tracing this policy in Mexico bolsters our understanding of the phenomenon of designing ETSs in nations that share structural characteristics. The lessons are indicative of processes in other jurisdictions that share relevant macro-level traits like presidential multi-partisan political systems, and a reliance on emission-intensive sectors or fossil fuels like Colombia.

The findings have relevant policy implications pertaining to transparency and participatory processes. As the 2018 report of the IPCC acknowledges in the innovative Chaps. 4 (“Strengthening and Implementing the Global Response”) and 5 (“Sustainable Development, Poverty Eradication and Reducing Inequalities”) socio-cultural legitimacy is vital to increasing the ambitiousness and feasibility of mitigation targets, especially as they relate to industrial and private sector acceptance (IPCC 2018: 316, 389). Additionally, the report emphasizes the need for environmental justice via stringent policies, and fair share debates on responsibility, capability, and the right to development (IPCC 2018: 470). The key aspect is that policymakers hear all voices in the design and implementation of policies, so that the population perceives that moving toward a low-carbon economy is an inclusive, ethical, and fair process. Examples like the Yellow Vest Movement in France show that transitions cannot be imposed without transparency and social justice.

The chapter evidences that mitigation strategies depend both on structural factors and on interest-based strategic calculations and shows that selective stakeholder engagement does not necessarily lead to better policies. However, whereas transparent policymaking contributes to increased accountability and legitimacy, some degree of confidentiality may also be fundamental to imbue trust to negotiations with key participants.

Although the political economy perspective of the analysis highlights the costs and benefits of emissions commodification, outcomes are not the result of fixed and homogeneous dominant interests. Albeit slowly, actors adjust their strategies in time; firms that constantly seek ways to reduce costs may find approaches that may overlap with mitigation such as energy efficiency measures.

International agreements have paved the way to ratchet-up the ambitiousness of emission-reduction commitments, yet these pledges remain dependent on intricate domestic strategies. The alleged inability to “afford” climate policies expands across the globe, as developed and developing nations face the apparent but false dilemma of striving for economic growth or climate mitigation.

References

- Altamirano JC et al (2016) Achieving Mexico’s climate goals: an eight point action plan. World Resources Institute (WRI), Washington, DC
- Butzengeiger S, Betz T, Bode S (2001) Making GHG emissions trading work—crucial issues in designing national and international emissions trading systems. In: EconStor, Hamburg Institute of International Economics
- Canacero (2016) Suplemento de la Industria Siderúrgica, México. <http://www.canacero.org.mx/en/assets/suplemento-siderurgia-2016.pdf>. Accessed 12 July 2017
- Cantala D, McKnight S, Sempere J (2013) Designing a greenhouse gas emission market for Mexico. *Environ Ecol Res* 1(3):135–141. <https://doi.org/10.13189/eer.2013.010303>. Vol.1(3),pp.135-141
- Carrigan C, Coglianese C (2016) George Stigler’s. ‘The theory of economic regulation’. In: Lodge M, Page EC, Balla SJ (eds) *The Oxford handbook of classics in public policy and administration*. Oxford University Press

- Colebatch HK (ed) (2006) *Beyond the policy cycle: the policy process in Australia*. Allen & Unwin, Crows Nest
- deLeon P (1999) The stages approach in the policy process: what has it done? In: *Theories of the policy process*. Westview, Boulder
- DOF (2019) Acuerdo por el que se establecen las bases preliminares del Programa de Prueba del Sistema de Comercio de Emisiones, 01/10/2019. http://www.dof.gob.mx/nota_detalle.php?codigo=5573934&fecha=01/10/2019. Accessed 2020
- EPA (2016) The social cost of carbon, 2016. https://19january2017snapshot.epa.gov/climatechange/social-cost-carbon_.html. Accessed 13 March
- Ervine K (2017) How low can it go? Analysing the political economy of carbon market design and low carbon prices. *New Polit Econ* 23(6):690–710. <https://doi.org/10.1080/13563467.2018.1384454>
- Falletti TG (2016) Process tracing of extensive and intensive processes. *New Polit Econ* 21(5):455–462. <https://doi.org/10.1080/13563467.2015.1135550>
- Fullerton D (2011) Six distributional effects of environmental policy. National Bureau of Economic Research, Working Paper No. 16703
- Grossman GM, Helpman E (1994) Protection for sale. *Am Econ Rev* 84:833–850
- Grossman GM, Helpman E (2001) *Special interest politics*. Massachusetts Institute of Technology, Cambridge
- Harrison K (2015) International carbon trade and domestic climate politics. *Glob Environ Polit* 15(3):27–48. https://doi.org/10.1162/glep_a_00310
- Howlett M et al (2014) Streams and stages: reconciling Kingdon and policy process theory. *Eur J Polit Res*. <https://doi.org/10.1111/1475-6765.12064>
- ICAP (2018a) UPDATED: Mexico releases draft regulations for pilot ETS system. <https://icapcarbonaction.com/en/news-archive/586-mexico-releases-pilot-ets-regulations-for-system-starting-in-2019>
- ICAP (2018b) Emissions trading worldwide status report 2019. <https://icapcarbonaction.com/en/news-archive/586-mexico-releases-pilot-ets-regulations-for-system-starting-in-2019>. Accessed 20 Aug 2020
- ICAP (2019a) Emissions trading worldwide, status report 2019. ICAP, Berlin
- ICAP (2019b) Emissions trading worldwide status report 2019. <https://icapcarbonaction.com/en/icap-status-report-2019>. Accessed 20 Aug 2020
- INECC (2018) *Inventario Nacional de Emisiones de Gases y Compuestos de Efecto Invernadero, México, 2018*. <https://www.gob.mx/inecc/acciones-y-programas/inventario-nacional-de-emisiones-de-gases-y-compuestos-de-efecto-invernadero>. Accessed 30 April 2017
- IPCC (2018) Special report. Global warming of 1.5 °C, WMO, UNEP, 2018. <https://www.ipcc.ch/sr15/>. Accessed 20 Jan 2019
- Kraft M (2017) *Environmental policy and politics*, 7th edn. Routledge, New York
- Krause RM (2013) The motivations behind municipal climate engagement: an empirical assessment of how local objectives shape the production of a public good. *Cityscape* 15(1):125–141
- Laffont J-J, Tirole J (1991) The politics of government decision-making: a theory of regulatory capture. *Quart J Econ* 106:1089–1127
- Ley General de Cambio Climático (Mexico General Law on Climate Change) (2012). http://www.profepa.gob.mx/innovaportal/file/6583/1/ley_general_de_cambio_climatico.pdf. Consulted 28 April 2020
- McAllister LK (2009) The overallocation problem in cap-and-trade: moving toward stringency. *Columbia J Environ Law* 34(2):395–445
- McKinsey & Company (2013) Updated analysis of Mexico’s GHG emissions baseline, the marginal abatement cost curve and project portfolios. United States Agency of International Development, Washington, DC
- Mehling M, Dimantchev E (2017) Achieving the Mexican mitigation targets: options for an effective carbon pricing policy mix. MIT, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), SHCP

- Narassimhan E et al (2018) Carbon pricing in practice: a review of existing emissions trading systems. *Clim Policy* 18:8
- Posner R (1974) Theories of economic regulation. *Bell J Econ* 5(2):335–358
- Posner R (2013) The concept of regulatory capture: a short, inglorious history. In: Carpenter, Moss (eds) *Preventing regulatory capture: special interest influence and how to limit it*. Cambridge University Press, New York, pp 49–56
- Rabe BG (2008) States on steroids: the intergovernmental odyssey of American climate change policy. *Rev Policy Res* 25(2):105–128
- Reboulon JA (2017) Siderurgia perdería competitividad con bonos de carbón. *El Financiero*, November 14th. <http://www.elfinanciero.com.mx/monterrey/siderurgia-perderia-competitividad-con-bonos-de-carbon.html>. Accessed 1 April 2018
- Rodriguez-Melo A, Mansouri SA (2011) Stakeholder engagement: defining strategic advantage for sustainable construction. *Bus Strat Env* 20:539–552
- Sabatier PA (1991) Toward better theories of the policy process. *PS: Polit Sci Polit* 24(2):144–156
- Sagoff M (2008) *The economy of earth: philosophy, law, and the environment*, 2nd edn. Cambridge, CUP
- Senado de la República (2017) Comunicación del Senado, Boletín de Prensa, August 16. <http://comunicacion.senado.gob.mx/index.php/informacion/comision-permanente/boletines-permanente/46-grupos-parlamentarios/boletin-de-prensa/38074-analiza-senado-implementacion-de-un-sis-tema-de-comercio-de-emisiones-de-carbono.html>. Accessed 1 June 2018
- SHCP (2017) Estadísticas Oportunas de Finanzas Públicas, México. http://www.shcp.gob.mx/POLITICAFINANCIERA/FINANZAPUBLICAS/Estadisticas_Oportunas_Finanzas_Publicas/Paginas/unica2.aspx. Accessed 10 June 2018
- Sprengel DC, Busch T (2010) Stakeholder engagement and environmental strategy—the case of climate change. *Bus Strateg Environ* 20(2011):351–364. <https://doi.org/10.1002/bse.684>
- Starik M (1995) Should trees have managerial standing? Toward stakeholder status for non-human nature. *J Bus Ethics* 14(3):207–217. <https://doi.org/10.1007/bf00881435>
- Stigler GJ (1971) The theory of economic regulation. *Bell J Econ Manag Sci* 2(1):3–21. <https://doi.org/10.2307/3003160>
- Talley JL, Schneider J, Lindquist E (2016) A simplified approach to stakeholder engagement in natural resource management: the five-feature framework. *Ecol Soc* 21(4). <https://doi.org/10.5751/es-08830-210438>
- Veysey J, Octaviano C, Calvin K, Martinez SH, Kitous A, McFarland J, Van der Zwaan B (2016) Pathways to Mexico’s climate change mitigation targets: a multi-model analysis. *Energy Econ* 56:587–599. <https://doi.org/10.1016/j.eneco.2015.04.011>
- Weible et al (2012) Understanding and influencing the policy process. *Policy Sci* 45(1):1–21. <https://doi.org/10.1007/s11077-011-9143-5>
- Weishaar SE (2014) *Emissions trading design: a critical overview*. Edward Elgar, Cheltenham
- Wilson JQ (1974) *Political organizations*. Basic Books, New York

Interviews

- Alarcón S (2017) Director of Carbon Trust Mexico, April 2017, Mexico City
- Escalona V (2017) Subdirector of Mitigation Policy, SEMARNAT, July 2017, Mexico City
- Interviewee 1, August 2016, Mexico City
- Interviewee 2, April 2017, Mexico City
- Interviewee 3, April 2017, Mexico City
- Muñoz Piña C (2016) General Director of Revenue Policy, SHCP, August 2016, Mexico City
- Nieto I (2018) Director of Sectoral Models of the National Institute for the Ecology and Climate Change, June 2018

- Schmalensee R, Stavins RN (2013) The SO₂ allowance trading system: the ironic history of a grand policy experiment. *J Econ Perspect* 27(1):103–122
- Secretaría de Gobernación, México (2019) Acuerdo por el que se establecen las bases preliminares del Programa de Prueba del Sistema de Comercio de Emisiones, DOF (Diario Oficial de la Federación). https://www.dof.gob.mx/nota_detalle.php?codigo=5573934&fecha=01/10/2019
- Stevens D (2021) Institutions and agency in the making of carbon pricing policies: evidence from Mexico and directions for comparative analyses in Latin America. *J Compare Policy Anal: Res Practice* 23(4):485–504. <https://doi.org/10.1080/13876988.2020.1794754>

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