



Coping with emissions. Institutions, ideas, and strategies in policy coordination processes : air quality and climate change policies in Mexico City and Paris

Roberto Rodriguez

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Coping with emissions. Institutions, ideas, and strategies in
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air quality and climate change policies in Mexico City and Paris

Roberto Rodríguez Rodríguez

Thesis supervised by Patrick LE GALÈS, directeur de recherche, CNRS-CEE

defended on February 23, 2022

Jury:

Daniel KÜBLER, Professor, Universität Zürich

Patrick LE GALÈS, directeur de recherche, CNRS-CEE

Vicente UGALDE SALDANA (Saldaña), Profesor-Investigador, Centro de Estudios Demográficos, Urbanos y Ambientales (CEDUA), El Colegio de México, A.C. (reviewer)

Chloé Anne VLASSOPOULOU, maître de conférences, Université de Picardie Jules-Verne

Philippe ZITTOUN, directeur de recherche en science politique, Université de Lyon (reviewer)

To Karine and my family, Angelina, Roberto, Paco, Eva, and Vale.

To my aunt Mela who would have been the first doctor in the family, but she left us too early.

Abstract

The thesis analyzes environmental policy coordination processes in cities. Based on a comparative case study of air quality and climate change policies in Mexico City and Paris, the research demonstrates that policy coordination in cities is a dynamic, sequential process where actors from the four governance dimensions – urban, vertical, horizontal, and international – with different competences and perceptions on how their actions affect each other, interact strategically under particular institutional configurations and cognitive references. To do so, the thesis develops a theoretical framework based on two approaches: historical institutionalism that addresses institutions as changing, power distributional elements, and cognitive theories of public policy that explain the organization of policy processes around ideational paradigms or frames of reference. The main argument is divided into two parts. First, policy coordination results from the interplay between (1) *institutions* that shape governance arrangements by distributing competences and establishing frameworks for action, (2) *cognitive frameworks* and *ideational processes* that define references, paradigms, and problems, and (3) the *strategic interactions* taking place within. The three elements combine, leading to positive coordination, negative coordination, or conflict. Second, those arrays remain steady until changes in the institutional context, either abrupt or incremental, rearrange the interactions by altering the frameworks of action, leading to different *coordination sequences*. Hence, I argue that due to the changing nature of the institutional context, coordination processes are sequential, rather than one-shot interactions due to the interplay between the abovementioned factors.

Keywords: Policy coordination, institutions, ideas, interactions, cities, governance.

Résumé de la thèse

Cette thèse analyse les processus de coordination des politiques environnementales dans les villes en menant une étude de cas comparée des politiques publiques de la qualité de l'air et de changement climatique à Mexico et à Paris. La recherche démontre que la coordination des politiques publiques dans les villes est un processus dynamique et séquentiel, où les acteurs provenant des quatre dimensions de la gouvernance – urbaine, verticale, horizontale et internationale – et qu'ont des compétences et perceptions différentes sur la façon dont leurs actions s'affectent mutuellement, interagissent stratégiquement sous des configurations institutionnelles et des références cognitives particulières. La thèse développe un cadre théorique basé sur deux approches : l'institutionnalisme historique qui aborde les institutions en tant qu'éléments changeants et distributives du pouvoir ; et les théories cognitives des politiques publiques qui expliquent l'organisation des processus politiques autour de cadres de référence et paradigmes idéationnels. L'argument principal est divisé en deux parties. Premièrement, la coordination des politiques résulte de l'interaction entre (1) des *institutions* qui façonnent les arrangements de gouvernance en distribuant des compétences et en établissant des cadres d'action, (2) des cadres cognitifs et des processus idéationnels qui définissent les références, les paradigmes et les problèmes, et (3) les interactions stratégiques qui s'y déroulent. Ces trois éléments se combinent, entraînant soit une coordination positive, soit une coordination négative, soit des conflits. Ensuite, ces réseaux restent stables jusqu'à ce que des changements dans le contexte institutionnel, qu'ils soient abrupts ou graduels, réorganisent les interactions en modifiant les cadres d'action, ce qui entraîne des séquences de coordination différentes. Par conséquent, je soutiens qu'en raison de la nature changeante du contexte institutionnel, les processus de coordination sont séquentiels, plutôt que des interactions ponctuelles dues à l'interaction entre les facteurs susmentionnés.

Mots clés : coordination des politiques publiques, institutions, idées, interactions, villes, gouvernance.

Acknowledgments

Little did I know that printing a paper for my girlfriend ten years ago would put me where I (we) am (are) today. Ever since I finished my master at CIDE in Mexico City I wanted to do a PhD. For one reason or another I had to wait around 6 years to finally fulfill such a desire. When the conditions were finally met and I was preparing my project, none of the literature really fit with my approach to the issue. Then I remembered the paper Karine asked me to print (yes, it was some years ago by then, but I have good memory), something about policy instruments written by two researchers in France. Two things happened. First, well, here I am, ten years later handing my thesis with one of the authors as my supervisor. Second, Karine now thinks twice before asking me to print something.

In my case, doing a PhD thesis has been more (much more) than just coincidences or the story I tell on how I got here (although its 100% true). It is a long process, intellectually and personally challenging, that I would hardly have concluded if it wasn't for the support of all the wonderful persons that have been with me throughout this journey. I want to express my sincere gratitude to Patrick Le Galès. He has guided me in a way that I couldn't imagine. All the discussions we had were incredibly inspiring, although challenging, and he has been with me all the way through this process. I wouldn't think of a better supervisor. Thanks for everything, Patrick.

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Finally, I want to thank the most wonderful person that has gone through this with me. Karine, I cannot imagine my life without you. You were there in the good times and the bad times. Barry White's words are the best way to describe my feelings for you, "You're the first, you're the last, my everything".

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Chapter 1. Introduction

1.1 The urban environmental tragedy

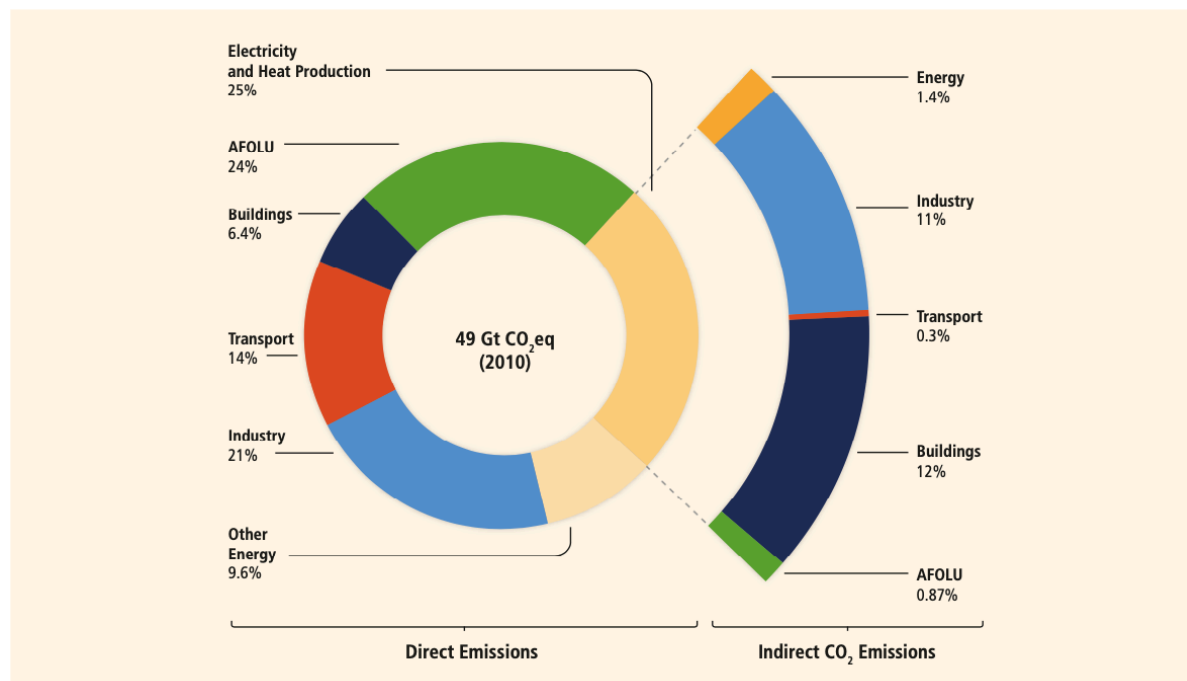
Climate and air pollution crises have sunk cities into an urban tragedy. Whenever the Intergovernmental Panel on Climate Change or any other international organization warn about the disastrous effects of rising global temperatures due to greenhouse gas (GHG) emissions, the cities seem to be the biggest losers. Here are some facts and figures. Sea level rise due to global warming could cause coastal inundations affecting 90% of urban areas with severe consequences on human and material losses (UN-Habitat, 2014). Without counting human victims, global flood losses in 2005 for the largest coastal cities were estimated at about USD 6 billion. According to the OECD (2014), the amount could increase up to USD 52 billion, without even considering climate change effects. The phenomenon is not restricted to coastal settlements. Increasing precipitation would also increase flooding risks, causing landslides, damaging infrastructure and disruption of livelihoods (Filho et al., 2019; UN-Habitat, 2014). Higher temperatures have health damaging effects due to more extreme heat waves (Filho et al., 2019). Displacements, reduced food supply, and water shortage add up to the large list of the several devastating effects of global warming (World Bank, 2010). If we consider that nowadays, around half of the world's population is urban, and estimates expect it to reach 70% by 2050 (OECD, 2020), well, that is the percentage of the total human beings that will suffer the hardest effects of the phenomenon. The climate urban tragedy has a global reach.

Just as cities constitute the principal victims of climate change, they are also primarily responsible for it. Globally, energy is the main greenhouse gas emission source, accounting for 76% of world's total GtCO₂-eq.¹ As seen in Figure 1.1, except for Agriculture, Forestry and Other Land Use (AFOLU), all the other economic sectors – transport, buildings, industry and electricity, and heat production – are energy-based (see EPA (2021) for a detailed description of each sector). Cities are the world's largest energy consumer (78 % of total), generating over 70 % of global CO₂ emissions and 60% of the total greenhouse gases (GHG) (UNEP, 2021; UN 2021). Recent estimates place 25 cities as responsible of 52% of the world's GHG emissions, which are mainly Chinese (Handan, Shanghai and Suzhou, to mention a few), plus Tokyo, Moscow and Istanbul (Wei, Wu, & Chen, 2021). Moreover, cities located in developed

¹ GtCO₂eq stands for “gigatons of equivalent carbon dioxide.” Based on the European Environment Agency, Eurostat (2017) defines the term as “a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.”

countries (USA, Europe and Australia) have higher per capita GHG emissions in contrast to those in developing countries (Wei et al., 2021). Whereas an argument of per capita GHG distribution may nuance the cities' "disproportionate" effects on global climate change (Dodman, 2009), it is precisely the concentration of human activity caused by ever growing urbanization and local consumption patterns what makes the cities the ones to blame for the current climate crisis.

Figure 1.1 Greenhouse Gas Emissions by Economic Sectors



Source: IPCC (2014, p. 44). AFOLU stands for Agriculture, Forestry and Other Land Use.

In addition to greenhouse gases, the fast-growing urbanization has caused an increase in air pollution emissions mostly due to the same factors: transportation, energy production, and industrialization (Baklanov, Molina, & Gauss, 2016). The issue has serious implications on diverse respiratory and cardiovascular conditions such as strokes, heart disease, and lung cancer (WHO, 2016). It's harmful effects make air pollution, according to the World Health Organization (WHO), "the biggest environmental risk to health, carrying responsibility for about one in every nine deaths annually" (WHO, 2016, p. 11).² In absolute numbers this means 4.2 million deaths per year (WHO, 2021). As Table 1.1 shows, Asian cities dominate the

² Whereas in most countries air pollution is considered to have more severe impacts in urban than in rural areas, I am not considering that it is *exclusively* an urban problem. There are some cases in which it is more aggravating in rural areas. For example, in India, 75% of air pollution-related deaths are located in rural areas (Karambelas et al., 2018).

rankings of the most polluted capitals in the world, with Delhi in the lead, followed by Dhaka (Bangladesh) and Kabul (Afghanistan) (IQ Air, 2019; WHO, 2019a). Air Quality rankings are based on average yearly PM_{2.5} concentrations expressed in micrograms per cubic meter (µg/m³).³ The WHO (2018) recommends an annual mean exposure of 10 µg/m³. According to the below table, this means that Delhi and Dhaka exceed around ten times such threshold, while the other cities in the top 10 do it by five. Even cities located lower in the rankings, such as Mexico City (30) and Paris (38), exceed the WHO's recommendations by 2 and 1.5 times, respectively (IQ Air, 2019).

Table 1.1 World regional capital city ranking by yearly average PM_{2.5} concentration

Ranking	Capital City/Country	PM _{2.5} concentration (in µg/m ³)
1	Delhi, India	113.5
2	Dhaka, Bangladesh	97.1
3	Kabul, Afghanistan	61.8
4	Manama, Bahrain	59.8
5	Ulaanbaatar, Mongolia	58.5
6	Kuwait City, Kuwait	56
7	Kathmandu, Nepal	54.4
8	Beijing, China	50.9
9	Abu Dhabi, UAE	48.8
10	Jakarta, Indonesia	45.3
30	Mexico City, Mexico	19.7
38	Paris, France	15.6

Source: World Air Quality Report (IQ Air, 2019, p. 8).

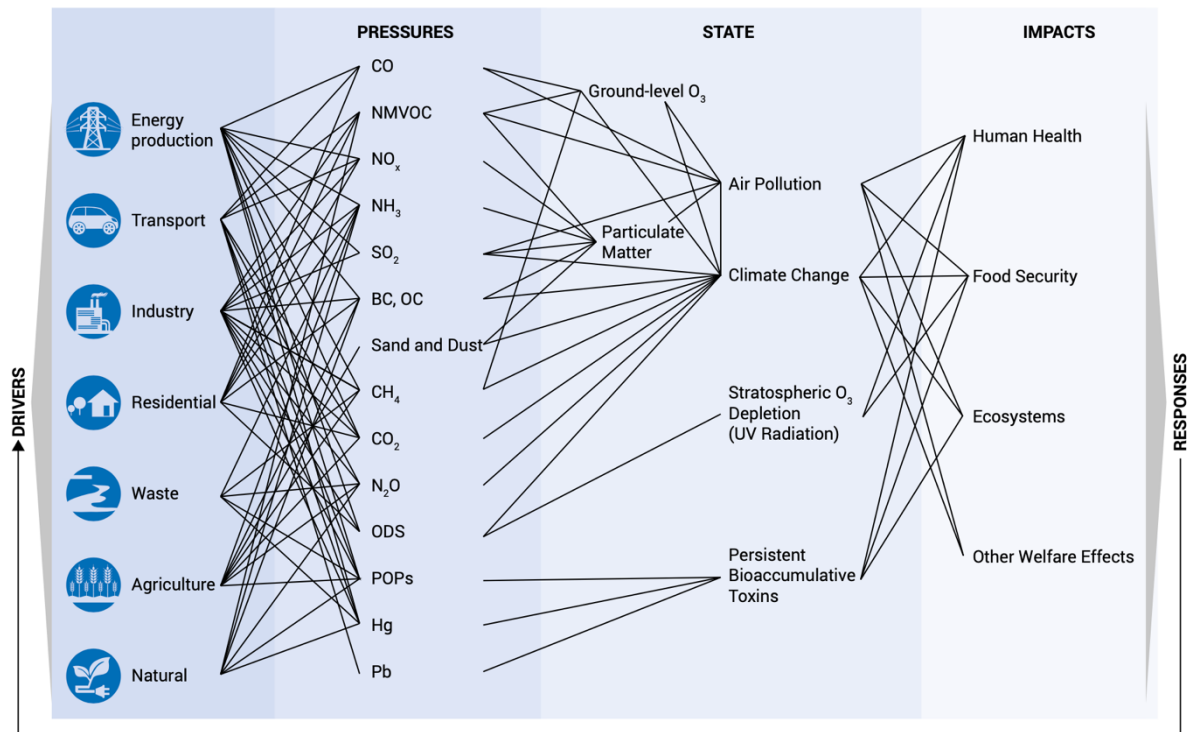
Here comes the tricky part. Climate change and air quality crises are intrinsically linked, not only because they are both effects of urbanization and thus caused by the same sources (industry, transport, energy generation) but also because some air pollutants are greenhouse gases too. As Figure 1.2 and Table 1.2 show, chemical compounds originated from different activities can be either catalogued as both, or as precursors of each other. For example, black carbon is a component of particulate matter (PM_{2.5}) and also a short-lived climate pollutant (WHO, 2019b). Similarly, ground-level ozone (O₃), one of the most common pollutants, is considered also a GHG. Other compounds such as methane, which is the second major GHG, are not necessarily harmful for human health but work as an ozone precursor⁴, having an

³ PM_{2.5} stands for fine particulate matter of 2.5 microns or less, one of the most harmful air pollutants causing respiratory and cardiovascular diseases. Due to its size, lungs cannot filter it properly, so it penetrates the respiratory system.

⁴ Ozone is considered as a secondary pollutant because it is not directly emitted by the pollution sources but generates from chemical reactions. It results from the oxidation of carbon monoxide (CO), methane (CH₄) or volatile organic compounds (VOCs) in the presence of nitrogen oxides (NO_x), ultra-violet rays and high temperatures (AIRPARIF, 2010; WHO, 2019b).

indirect relationship with air pollution. Emissions are thus the leading characters of an urban tragedy whose plot unfolds through two interrelated, although different problems.

Figure 1.2 Sources of GHG and air pollutants



Source: UN Global Environmental Outlook (Ekins, Gupta, & Boileau, 2019, p. 109)

Policymaking processes seeking to cope with the abovementioned crises take place under domain and city-specific conditions, involving multiple actors and institutions from different sectors and government levels (Bulkeley, 2019; Castán Broto, 2017; Söderberg, 2016; Voß & Kemp, 2006; Zeemering, 2012). The next part draws on these conditions in two ways. First, a review of the research carried out by the policy studies literature provides insights of the characteristics of environmental problems. The following section argues that policymaking in cities has its particularities due to the involvement of many actors from many sectors and government levels. Both elements – the characteristics of environmental problems and the multi-actor character of urban policymaking – highlight the problem of coordination, which is going to be the main focus of this thesis.

Table 1.2 Selected greenhouse gases and air pollutants and the type of relationships

	GHG	Air pollutant	Both	Indirectly related
Carbon monoxide (CO)		X	*	Ozone precursor
Carbon dioxide (CO ₂)	X			-
Methane (CH ₄)	X		*	Ozone precursor
Nitrous oxide (N ₂ O)	X			-
Black carbon			X	-
Ozone (O ₃)			X	-
Lead (Pb)		X		-
Nitrogen dioxide (NO ₂)		X	*	Ozone precursor
Particulate matter (PM ₁₀ and PM _{2.5})		X	*	Contains black carbon
Sulfur dioxide (SO ₂)			X	-
Volatile organic compounds (VOCs)		X		-
Hydrofluorocarbons	X			-

Source: Own elaboration with information from the UN Global Environmental Outlook (Ekins et al., 2019).

1.2 Dealing with urban environmental problems

1.2.1 A policy touch for the study of environmental policies

Environmental policies are messy. Anytime any public action aims to tackle problems as the ones mentioned above, it must deal with a wide array of actors, organizations, institutions, and other existent policies. Such features imply the involvement of many interests coming from different government levels and other domains of action. Often, this leads to disagreements over the courses of action and proposed solutions of environmental problems (Alford & Head, 2017; Crowley & Head, 2017; Head, 2019; Selman, 1999). If it wasn't enough, the ministries or organizations in charge of formulate and put environmental policies into practice find themselves in a powerless position, with limited staff and budget, lagging behind other more powerful domains (Romero-Lankao, 2000). One of the most recent examples of the weakness of the environmental sector was the resignation of Nicolas Hulot, the former French Minister for the Ecological Transition. A longtime renowned environmentalist, Hulot argued that as the head of environmental policy in France, he had “some influence but no power” and he was constrained by the industry lobbies, without the proper means to act (Mediavilla, 2018; “La démission de Nicolas Hulot : « Je ne veux plus me mentir »”, 2018). The analysis of this type

of problems and the ways they are addressed requires approaches capable to disentangle the “nuts and bolts” of these processes.

Public policy scholarship has advanced to make sense and analyze the abovementioned dynamics, giving useful insights on how environmental problems are conceived, their insertion into the governmental agenda, how decisions are taken, the way policies are implemented and the processes through which they change. Below is presented a brief literature review of the policy studies advancements on the issue with the purpose of unveiling the characteristics of the environmental problem.

1.2.1.1 A salient, politicized issue

Problems are socially constructed, and as such, they can be reframed depending on different historical moments and the consensus reached by different groups (Cobb & Coughlin, 1998; Rochefort & Cobb, 1993). In this regard, Kurze and Lenschow (2018) showed that the European Union’s energy policy drifted from a sustainability to a low-carbon discourse, impacting the sectors and actors involved in policymaking. Besides its definition, environmental problems can also change its status in the public concern. In his seminal contribution, Anthony Downs (1972) studied the factors that make public problems rise and fall from the public attention (mainly due to boredom or the institutionalization of policies). He developed the “issue attention cycle”, to show how the environmental concern in the U.S. “leaps into prominence, remains there for a short time, and then fades from the center of public attention” (Downs, 1972, p. 38).

How problems get into the agenda is a political process. To understand the adoption of climate change policy in the national agenda of the U.S. government, Sarah Pralle (2009) used Kingdon’s multiple streams model and Rochefort and Cobb’s problem definition framework. According to the former, issues become prominent and enter the public agenda when three separate streams – *problems* that require attention, *policy* alternatives and *politics* (political changes in government)- join up together under a specific circumstance -such as a crisis- that opens a “window of opportunity” which is consequently exploited by policy entrepreneurs that seek policy change (Kingdon, 2014). Rochefort and Cobb’s (1993) model relies more on the role of problem definition and argumentative strategies that are used by the actors in one domain to increase the saliency of the issue (see also Cobb & Coughlin, 1998). Through these perspectives, Pralle develops rhetorical and political strategies that will help to keep the issue high in the agenda priorities – i.e. report key indicators, emphasize scientific knowledge,

acknowledging the growing public concern, pointing to specific health impacts and emphasizing the costs of doing nothing vis-à-vis the economic gains associated with green technology (Pralle, 2009).

1.2.1.2 Multiple instruments and strategies

Policy design and the role of policy instruments has also been a matter of study on environmental issues. Originally, the academic concern centered in the choice of regulatory, economic, and information-based instruments and their impact on environmental protection, notably on air pollution control (Pacheco-Vega, 2020). The focus has moved, however, to grasp a more comprehensive study on “policy mixes” as a broader set of strategies, including instruments, plans, and diverse interventions (Capano & Howlett, 2020; Howlett, How, & del Rio, 2015; Howlett, Mukherjee, & Woo, 2015) to achieve environmental goals. There are some examples of research drawing on the mixes approach for the study of energetic transitions (Rogge, Kern, & Howlett, 2017; T. S. Schmidt & Sewerin, 2018). For example, Rogge and Reichardt (2016) argue on the need of policy mixes towards sustainability transitions through technological change. The authors develop a framework using what they call the three “building blocks” of the mixes – elements (instruments and strategy), processes through which those elements are developed and their characteristics such as consistency between diverse instruments and the coherence of the process – and apply it to the case of renewable energy policies in Germany to study the link between policy mixes and technological change.

Within the literature there is also an effort to link policy design and implementation. Howlett and Rayner (2007) develop a framework to understand the range of available policy instruments and the factors allowing to integrate a new policy mix. They apply the model to the forestry sector and conclude that the likelihood of successful implementation is constrained by previous institutionalized policy choices. Similarly, Steinebach (2019) analyzes whether the effectiveness of different types of policy instruments is determined by implementation dynamics (capacities, coordination, control and cooperation). Through the analysis of pollutant emissions and regulations in 14 OECD countries he finds that whereas some instruments cannot be linked to a decrease on pollutant emissions, command and control regulations achieve significant reductions only when they are implemented through centralized, hierarchical, and technically capable structures.

1.2.1.3 Coalitions, mobilization, and beliefs

Acknowledging the dynamism and contentious nature of the environmental domain, other approaches focus on the coalitions trying to influence policy processes. Such is the case of the advocacy coalition framework, according to which actors or policy participants, in different positions, and who share strong beliefs, try to aggregate and mobilize resources to map their preferences into public policies (Sabatier, 1988; Sabatier & Weible, 2014; Weible, Ingold, Nohrstedt, Henry, & Jenkins-Smith, 2020). Policy change comes either from the adaptation of the coalition to the environment or from external shocks that affect its position. Since its conception, this framework has been widely applied to the analysis of environmental policy. Indeed, in its first overview in 1988, Paul Sabatier explained the turnaround of air quality over several decades, from a neglected issue to a matter of public concern and then again overshadowed by new problems (Jenkins-Smith, Nohrstedt, Weible, & Sabatier, 2014; Sabatier, 1988). Ever since Sabatier's seminal contribution, the approach has been used to explore a wide range of issues in the environmental domain (Orach & Schlüter, 2016). Some examples include climate change legislation and planning (Elgin & Weible, 2013; Knox-Hayes, 2012) and mitigation-related collaboration (Ingold & Fischer, 2014), air pollution (Cook, 2002; Sabatier, 1988), and water management (Koebele, 2020; Lubell, 2003).

1.2.1.4 A cross-cutting problem

Policy studies recognize the transversal nature of environment as a problem spanning traditional boundaries of policymaking, crosscutting between different policy domains, jurisdictions and government levels (Candel & Biesbroek, 2016; Jochim & May, 2010). This means, for example, that decreasing air pollutants and greenhouse gases involves changes in transport, agriculture, and energy generation sectors. Such scenario brings two simultaneous challenges. First, to make policies within these and other domains coherent with environmental objectives; and second, to bring up consistency between instruments, regulations and other actions introduced to achieve environmental goals and the already existing policies and practices that inhabit a wide arrange of domains.

Concepts like policy coherence and policy integration cope with this dilemma. The former considers that designing policies from different domains should be aligned to achieve a “great objective” to avoid spillover effects and reduce conflict (Cejudo & Michel, 2016; Dery, 1998; Nilsson et al., 2012). Policy integration is a more encompassing, strategic process, seeking to unify programs and agencies to solve a particular problem (Candel & Biesbroek, 2016; Tosun

& Lang, 2017). The widespread adoption of integration into sustainable development has led to the notion of Environmental Policy Integration (see Jordan & Lenschow (2010) for a literature review of the concept) whose objective is “to incorporate, and, arguably, to prioritize environmental concerns in non-environmental policy domains, with the purpose of enhancing environmental policy outcomes” (Candel & Biesbroek, 2016, pp. 212–213).

Policy coherence and integration literature also recognize the multi-level character of environmental measures. Söderberg (2016), analyses whether policy coherence and multi-level governance structures affect the implementation of Water Framework Directives of the European Union. Another example is that from Howlett, Vince and del Río (2017) who compare the management of marine protected areas in Australia with coastal zone management in Europe to point out the different levels of complexity that arise from the number of goals, policies and levels of government involved (the degree of verticality and horizontality, according to them). In that matter, they urge to understand the nature of this policy mixes to design better integration strategies. In sum, according to the policy coherence and integration literature, the transversal nature of environmental issues makes it a multi-sectorial-multi-level issue.

1.2.2 What about the *urban touch* of environmental policies?

Despite the broad set of analytical tools provided by the policy studies literature to address the environmental problem, its application to urban contexts is still underdeveloped. In a literature review of the research trends in environmental politics and policy, Fahey and Pralle (2016) note a “governance turn” to study the range of actors and institutions involved in environmental policy. According to their paper, articles touching the local level are mostly to stress the subnational effects of national policies, highlight the multi-level character of environmental policies or link local actions to national or global concerns (Fahey & Pralle, 2016). Urban politics, the dynamics of local policymaking and the interrelationship between cities and its larger context is barely touched. A policy analysis focused on the aforementioned “urban tragedy” should consider the role of local, public and non-public actors, institutions and multi-level dynamics (Kaufmann & Sidney, 2020). That is, a comprehensive analysis of governance. For cities, governance logics imply the interrelation of governmental agencies, levels of government, institutions and private actors (civil society and businesses for example) in interrelated policy domains (Le Galès, 2014; Pierre, 2000). From an urban standpoint this entails the consideration of internal dynamics (politics and relationships with non-public

actors) as well as the multi-level conditions of urban policy (institutional frameworks, actors and other policies defined by other levels of government) (Borraz & Le Galès, 2010, p. 143). The abovementioned features suggest urban policies operating under four dimensions: urban (or internal), horizontal, vertical, and international (Kaufmann, 2018; Kübler & Pagano, 2012). As displayed below, they all represent an interplay between a wide variety of actors from different government levels.

- Urban governance: The role of local government is still preeminent but also takes into account the strategic capacity and the negotiation dynamics with other political and non-governmental actors, such as the civil society, private representatives, enterprises, and non-governmental organizations (NGOs), etc. (Le Galès, 1995). The interplay between those actors plays differently depending on the context and there is no single, universal mode of urban governance (Pierre, 2011). Each case reflects particular norms, ideas and practices which are function of different modes of democracy and the role of government in the relations with the civil society and economic and political actors (Pierre, 1999).
- Horizontal dimension: commonly addressed as metropolitan governance, it refers to the relationships between local governments, recognizing their fragmentations but also the interrelatedness of some problems and policies going beyond the traditional political jurisdictions (Hendrick & Shi, 2015; Lefèvre, 1998).
- Vertical dimension: Different issues and problems are addressed across a specific configuration of the powers, attributions, and the decisional logic of each State. Intergovernmental relations affect the nature of policymaking depending on the degree of involvement of each government level in terms of their defined powers and attributions (Agranoff, 2011; Hooghe & Marks, 2003). Therefore, institutional frameworks and other policies partially defined by higher scales have a strong influence on policymaking in cities, making the interactions with other government levels and actors another characteristic of the urban context (Crouch & Le Galès, 2012; Le Galès, 2001; Peters & Pierre, 2012)..
- International dimension: Considers the role of cities in the international sphere (Kübler & Pagano, 2012). International organizations set regulations (such as the case of the European Union directives) and provide funding and expertise to implement local projects. Moreover, cities engage in transnational networks to advance common

problems and conform power blocks to exert leadership and lobby (Bulkeley & Betsill, 2003).

These dimensions show the existence of differentiated actor configurations in the policy processes: while some policies are handled internally, with the participation of local public and private actors (urban governance dimension), others, more complex in nature, such as the environment, are implemented across sectors and government levels (horizontal, vertical or even international dimensions). If governance is defined as the process to coordinate “actors, social groups and institutions to attain clear goals that are discussed and defined collectively in fragmented, uncertain environments” (Le Galès, 1998, p. 495) then each problem has a particular governance arrangement comprised by a constellation of such elements, shaping urban policymaking.

Governance arrangements are analogous to what Stone Sweet, Fligstein and Sandholtz (2001) denominate political spaces. To define them, the authors depart from the concept of social spaces as “recurrent situations wherein actors orient their actions to one another repeatedly” (2001, p. 12). These arenas institutionalize when there is a “widely shared system of [formal and informal] rules and procedures to define who actors are, how they make sense of each other’s actions, and what types of action are possible” (Stone Sweet et al., 2001, p. 12). As a sub-category of social spaces, political spaces are evolving sites of collective governance whose purpose is to produce policy. These arenas “give actors formal roles in the political process and define how that process produces outcomes” (Stone Sweet et al., 2001, p. 13).

Governance arrangements are therefore evolving political spaces where actors from different spheres (public and private) and government levels interact during policymaking under institutionalized patterns and in reference to some action frameworks. Thus, to analyze policymaking at the city level, the features of the environmental problem captured by the policy studies literature (complexity, politization, formulation and implementation strategies, policy instruments, mobilization, transversality) need to be nested within the specificities of the urban context. In that sense, urban environmental policy comprises governance arrangements where many actors from different sectors at different government levels interact, raising the issue of coordination. How does these arrangements operate? Under which conditions? By answering these questions, the following section elaborates on the defining elements of coordination, setting the ground for the analytical approach used in the dissertation.

1.3 The study of policy coordination: of fragmentations, dependencies, processes, and outputs

Scholars have longtime discussed the elements that make governmental action efficient and effective. Their work spans from debates in terms of separation of politics and administration (Wilson, 1887) to notions such as quality of government (Rothstein & Teorell, 2008), “good governance” (Rothstein, 2012), feasibility analysis (Majone, 1989), policy design recommendations (Bardach, 1977), policy transfer (Rose, 1991), etc. However, one necessary condition for their effectiveness is the degree of coordinated action they are able to achieve (Peters, 1998, 2018). Sometimes seen as the “holy grail of policy success” (Peters, 2015a), coordination is a transversal issue, underlying to all forms of governmental action.

Policy coordination has been a matter of empirical and theoretical studies in the public administration and public policy literature. We account for many examples: on inter-organizational coordination between government agencies (Bouckaert, Peters, & Verhoest, 2010; Jennings & Ewalt, 1998; Peters, 1998); between government levels, either understood as intergovernmental relations (Agranoff, 2011; Agranoff & McGuire, 2001; De Montricher, 1995; Eberlein, 1996), multi-level governance (Citi & Rhodes, 2007; Hooghe & Marks, 2003; Newig & Koontz, 2014; Stephenson, 2013); on horizontal relationships between local governments or metropolitan governance (Lefèvre, 1998; Lefèvre & Weir, 2012; Sager, 2005); or inter-sectorial, holistic strategies such as policy coherence (Careja, 2011; Dery, 1998; May, Sapotichne, & Workman, 2006; OECD, 2016), and policy integration (Candel, 2017; Candel & Biesbroek, 2016; Cejudo & Michel, 2017; Jordan & Lenschow, 2010; Tosun & Lang, 2017).

Drawing on this literature, this section builds the conceptualization of coordination orienting the thesis. First, it argues that coordination is both, a response to fragmentations due to specialization but also to the mutual dependencies of the actors involved in policymaking. Then, it defines coordination as a process and an end-state. It highlights the coordination modalities resulting from the interactions of fragmented but mutually dependent actors.

1.3.1 The dual nature of coordination

Research on policy coordination distinguishes two main approaches of coordination processes. One is more related to a division of labor due to specialization and deals with the problem of integrating fragmented agencies or organizations to achieve a common objective. The other deals with the actors’ perceptions on how their actions affect each other, also known as mutual

dependencies. The two are discussed below to conclude that policy coordination analyses should consider both.

1.3.1.1 Coordination as a response to fragmentations

Let's begin with an example from organization theory. In their pioneering work, Lawrence and Lorsch (1967a, 1967b) argued that to adapt to a continuously changing environment organizations deploy internally two simultaneous and at first glance contradictory functions: differentiation and integration. The former refers to a segmentation of their parts so they can “develop particular attributes in relation to the requirements posed by its relevant external environment” (Lawrence & Lorsch, 1967a, p. 4). The idea here is to perform and adapt according to the problems posed by the context in order to deploy the more appropriate tools and forms of intervention (Cabrero & Zabaleta, 2009). Organizations *segment* their environment into related sectors to cope with different functions. It's a classic conception of division of labor.

Integration, on the other hand, is defined by them as “the process of achieving unity of effort among the various subsystems in the accomplishment of the organization's task” (Lawrence & Lorsch, 1967a, p. 4). In short, these subsystems are fragmented and operate through a division of labor but at the same time they must achieve a common objective. The segmented, specialized sectors are somehow linked because they need to develop a unified effort to accomplish the organizational goal. Integration means that all the segments are working to achieve a common goal. The need for specialization has to be reconciled with the need for coordination of effort (Lawrence & Lorsch, 1967a, p. 47).

Lawrence and Lorsch's work is a good example of the current perspective of certain policy coordination studies, where coordination is a response to a division of labor that entails “the distribution of tasks, roles and responsibilities within the State's administration or, generically speaking, the modes of specialization of public organizations” (Bezes & Le Lidec, 2016, p. 407). Governments segment their domains of action to be specialized in many issues so they can be more effective when intervening in a particular problem. We have then a set of organizations, government levels and other actors implementing policies in different policy domains⁵ that could either be divided into substantive topics (targeted on specific areas, such

⁵ Policy Domains are analytical distinctions of the subset of issues that are encompassed in a specific topic or area. More formally defined, they are a “set of policies that are so closely interrelated that it is not possible to make useful descriptions of or analytic statements about one of them without taking the other elements into account” (Majone, 1989, p. 159). The term is analogous to concepts such as policy subsystems (Sabatier, 1988), policy

as environment, health, security, etc.), target groups, or geographical areas (May et al., 2006). The deployment of policies through different levels of government constitutes another type of division of labor that relies not only on the sector of expertise but also on whether national or subnational governments handle a particular issue (Jensen, Koop, & Tatham, 2014). Coordination therefore addresses the problem of fragmented government caused by specialization (6, 2004). In this line of thought, the term is defined as

“the instruments and mechanisms that aim to enhance the voluntary or forced alignment of tasks and efforts of organizations within the public sector. These mechanisms are used in order to create a greater coherence, and to reduce redundancy, lancunae and contradictions within and between policies, implementation or management” (Bouckaert et al., 2010, p. 16).

Cejudo and Michel (2017) propose a similar definition of policy coordination: For them,

“coordination is a process in which members of different organizations define tasks, allocate responsibilities, and share information in order to be more efficient when implementing the policies and programs they select to solve public problems” (Cejudo & Michel, 2017, p. 752).

Both definitions address fragmentations through the allocation of powers and responsibilities to actors involved in policymaking. Coordination is understood as a technical-administrative aim that will be achieved by institutional means: when dealing with a specific issue, each one of the specialized actors (organizations, levels of government, non-public actors) will have its well-defined tasks established on laws, contracts, guidelines, or any other type of formally or informally established institutions (contracts, organizations, or some sort of networks). In this line of thought, these institutions give some order and guide behavior by defining which part of a process has to be taken by whom; then, coordinated actions are supposed to emerge.

1.3.1.2 Addressing mutual dependencies

As the above definitions mention, fragmentation due to issues such as organizational specialization and disaggregation urges the need to coordinate. Thus, coordination mechanisms or processes aim to integrate fragmented actions to achieve a common objective while avoiding efficiency losses, contradictions, and redundancies. This orientation, however, fails to acknowledge the relational and cognitive aspects of coordination arising from the actors’

sectors (Trein, 2017a), issue domains (Burststein, 1991), or policy spaces (Majone, 1989). I will use any of these denominations indistinctively.

dependence on each other's actions while meeting a policy objective. The work of Charles Lindblom and the sociology of organizations address the issue. According to the former, the problem of coordination needs to bring attention to the set of *mutual dependencies* that are present during the policymaking process.⁶ For Lindblom,

“each decision maker is in such a relation to each other decision maker that, unless deliberately avoids doing so (which may or may not be possible), he interferes with or contributes to the goal achievement of each other decision maker, either by the direct impact or through a chain of effects that reach any given decision maker only through the effects of others.” (Lindblom, 1965, p. 22).

According to Lindblom, actors have some degree of influence on each other by contributing, interfering, or avoid interacting with each other. In other words, they are mutually dependent. The author's definition of an end-state of coordination acknowledges this. For him, “A set of decisions is coordinated if adjustments have been made in it such that the adverse consequences of any one decision for other decisions in the set are to a degree and in some frequency avoided, reduced, counterbalanced, or outweighed” (Lindblom, 1965, p. 164). The adjustments mentioned in the definition can take place either by an adaptation from one actor to other or by interactions, in the form of negotiations, tradeoffs, or compensations. In other words, dependencies strive the need of mutual adjustments where actors interact through a set of strategies to fulfill their interests, achieving a negotiated end-state, thus leading to coordination (Zittoun, 2017).

For the sociology of organizations, coordination is also a relational issue product of strategic interactions and cognitive factors. The point of departure is that dependence is a basis for exerting power (Fligstein, 1987). Therefore, mutually dependent actors, whose actions and decisions influence each other, are interconnected through power relations that rest on negotiations leading to mutual adjustments (Bergeron, 2018; Pinson, 2015). Such power relations tend to stabilize or adjust if they are reciprocal and, through strategic interactions, are able to “link long-term interdependent actors in the achievement of a common objective” (Bergeron, 2018, p. 68). Therefore, “the need for coordination is in function of the degree of the existing interdependence modalities between the parts of an inter organizational or intra organizational system” (Duran & Lazega, 2015, p. 295).

⁶ A brief conceptual clarification between dependence and interdependence must be noted, even if some authors use them indistinctively. As will be further mentioned, dependence is an inherent condition of coordination, while interdependence refers to the acknowledgment of such dependencies by the actors.

Additionally, according to Duran & Lazega (2015) and Thoenig & Duran (1996), cognitive mechanisms are key to understand coordination. In situations of mutual dependence, coordination processes rely not only on negotiations but also on the extent to which actors and organizations realize whether and how their actions affect each other. That is, the perceptions actors have on the type of interdependencies regarding a common affair play an important role in coordination (Duran & Lazega, 2015). These perceptions, in turn, rely on collectively built cognitive frameworks that represent a reference point for the interactions (J.-C. Thoenig & Duran, 1996). In sum, for the sociology of organizations, coordination processes arise as a response to mutual dependencies, which in turn are defined by strategic interactions and perceptions.

The main point of this section is to show that the fragmentation and dependence dimensions are not mutually exclusive. Therefore, instead of defining coordination as the duality of differentiation/integration, it makes more sense consider processes taking place under fragmentations and mutual dependencies. That is the paradox that policy coordination tries to solve. Governments specialize in different functions and divide labor into organizations from many sectors and levels of government. All this leads to a set of horizontal and vertical *fragmentations*. At the same time, all the actors involved on policymaking are *mutually dependent* because in each domain their actions are oriented towards the solution of a public problem, which will mean the completion of the big objective.

1.3.2 Defining coordination- A process and end-state

What is coordination then? Research points out that coordination can be seen as a process and as an end-state (Bouckaert et al., 2010; Peters, 1998, 2015b). As a process, the bi-dimensional nature of coordination means that fragmented but mutually dependent actors interact during policymaking. Therefore, *a policy coordination process is when actors from different spheres of action, with assigned competences, interact under specific perceptions of their mutual dependencies, engaging in exchanges and negotiations over the courses for action and solutions of public problems*. On the other hand, coordination as end-state will be the extent to which fragmentations are integrated under a common understanding between the actors on how their actions affect each other. The process defining whether actors work together or not to achieve a policy objective could lead to different results.

Les Metcalfe (1994), identified a nine-level cumulative scale of policy coordination, going from independent decision-making (level 1) to an overall government strategy (level 9). Some

intermediate stages are information exchange (level 2), feedback (level 3) or consensus seeking (level 5) (Metcalf, 1994). The author developed such scale with the purpose of analyzing the competences needed to achieve coordination, therefore, achieving level 6 (arbitration of policy differences) means that the other 5 lower levels were also achieved. Despite the thorough development of the coordination scale, Metcalf's contribution is oriented towards the analysis of coordination capacities needed for particular circumstances and not necessarily as a product of the interactions taking place under the beforementioned terms.

Another distinction is between positive and negative coordination. As defined by Fritz Scharpf, negative coordination is where "actors, in choosing their own courses of action, are required to avoid conflicting damages to the protected interests of other actors involved" (1997, p. 112). In policymaking, negative coordination means that actors explicitly or tacitly agree that "they will not harm each other's programs or operations" (Bouckaert et al., 2010, p. 20). Positive coordination, on the other hand, is when actors "give up some policy goals and some of their preferred ways of achieving those goals in order to attain greater overall performance" (Bouckaert et al., 2010, p. 20). This second mode implies not just to avoid interferences but to act jointly to achieve policy objectives. This categorization is similar to the weak/strong duality outlined by Weible and Ingold (2018) on their work on coalition coordination. Strong coordination entails "planned and acknowledged political behavior", where activities are "agreed upon and acknowledged by coalition actors" (Weible & Ingold, 2018, pp. 333–334). Weak coordination involves a more passive interaction (Koebele, 2020), where "activities are in sync toward achieving a common goal without conscious planning" (Weible & Ingold, 2018, pp. 333–334). Despite the similarities between the coalitions' literature and the positive/negative concepts, the strong/weak distinction is more towards explicit or implicit forms of interaction or active/passive engagement, failing to capture the strategic part of their actions.

The dichotomic distinction of positive/negative coordination suits better for the purpose of this study because the outcomes of the fragmentations and dependencies are neither constrained to specific circumstances, nor they are just a matter of explicit or implicit forms of action. It is more a result of the interactions that is best captured by either avoid interference or developing conscious joint action. However, there is a third possibility that results from coordination processes when actors deliberately obstruct or hamper each other's actions. In Lindblom's conceptualization of interdependencies, he stressed the possibility for actors to deliberately

interfere to the goal achievement of each other decision maker (Lindblom, 1965, p. 22). This third outcome refers to conflict arising from the fragmentations and mutual dependencies.

1.4 Analyzing urban policy coordination. Building the argument of the thesis.

The thesis seeks to analyze environmental policy coordination processes of governance arrangements in cities. Its study departs from joining up the features of governance arrangements with the dual nature of coordination (fragmentations and dependencies). The dissertation first argues that fragmented, mutually dependent actors from the four governance dimensions – urban, vertical, horizontal, and international –, engage in strategic interactions within institutionalized but evolving spaces with their own interaction patterns and cognitive frameworks (or governance arrangements). Therefore, *policy coordination processes in cities take place between actors with different competences and perceptions on how their actions affect each other, that interact strategically under particular institutional configurations and cognitive references*. Such processes may lead to positive coordination (or deliberate joint action), negative coordination (or tacit coherence), or conflict.

Due to the implications of fragmentations and dependencies in governance arrangements, the understanding of policy coordination processes in urban environmental policy considers institutional, cognitive, and relational aspects. Structural or institutional elements refer to the formal distribution of competences as well as informal rules and interaction patterns. Their study allows to unveil in the first place how their attributions define certain “rules of the game”, outlining “who can do what” and ultimately leaning the balance of power towards the actors holding competences on certain aspects (Hall & Taylor, 1996; Mahoney & Thelen, 2010). Additionally, institutional arrangements can lock-in institutionalized patterns of interaction, structuring “certain ways of doing things”.

Cognitive aspects, on the other hand, define frames of reference for the interactions; hence the way actors acknowledge their position in policymaking, affecting their perceptions of their mutual dependencies. Ideas on the way public problems should be defined also enter in this category. As shown below, problem definition engages actors in negotiations through coordinative discourses where they could either reach agreements leading to a collective conception or end up in conflict. Finally, relational aspects take place under institutional and cognitive frameworks that shape the actors’ strategies. Drawing on historical institutionalism and cognitive approaches to public policy, the next section develops the theoretical foundations for the analysis of urban policy coordination.

1.4.1 Of structure and ideas

1.4.1.1 *How institutions affect policy coordination processes within governance arrangements?*

I will first discuss the issue of distribution of competences and its implications for coordination. According to rational choice institutionalism (RCI), institutions are created in response to conflict. In their absence, individuals face a “social dilemma”, understood as a situation in which “their behavior makes all worse off” (Weingast, 2002, p. 670). In his seminal paper, Kenneth Shepsle (1986) treats institutions as a response to cooperation conflicts because they look to inhibit opportunistic behavior and enable positive collective action. They are “ex ante agreements about a structure of cooperation” (Shepsle, 1986, p. 74). Institutions try to anticipate to possible behaviors by establishing a set of rules to accomplish a particular objective. By doing so, they induce stability to what once was a state of conflict. Once created, they condition action by supporting cooperation in contexts of strategic interaction (Hall, 2016).

Linking this view to policy coordination, *competences arise in response to an “original state” in which none of the actors involved in policymaking has well defined attributions. Thus, to cope with fragmentations, institutions distribute functions and responsibilities to actors within governance arrangements.* Other institutions can foster information exchanges for all the actors within a specific governance arrangement to “integrate” all the specialized actions (to use Lawrence and Lorsch’s analogy). In short, a RCI view of this type is useful to understand the role of institutions as structuring elements that serve to the purpose of division of labor... only if the problem were just fragmentations due to specialization. Indeed, competence distribution has more implications for the interactions.

Rational choice falls short when addressing fragmentations of other nature (i.e., political) and the mutual dependencies of strategic actors. Moreover, institutions have to be understood also as choice themselves (Shepsle, 1989) and the effects that such choices may have. As a choice, institutions are the result of struggles among unequal actors (Pierson & Skocpol, 2002). At the same time, what they do is to distribute power, giving disproportionate access to decision-making processes (Hall & Taylor, 1996). According to historical institutionalism, institutions are “distributional instruments laden with power implications” (Mahoney & Thelen, 2010, p. 7). The distributional consequences are the result of resource considerations regarding unequal implications of its allocation. In the context of governance arrangements, this assumption means that institutions, in the form of allocation of competences, will not just determine the

tasks and responsibilities but also who has the power to do what and in which conditions, opening opportunities for the actors to deploy strategic actions to advance their interests.

This is precisely what happens with decentralization processes and the distributional implications of institutions. According to Jensen et al. (2014) the transfer of attributions to subnational governments leads to power dispersion between different government levels. The allocation of competences varies in the degree of power dispersion, defined by its depth and scope: “Depth refers to the extent to which the actors to whom competences are allocated possess autonomy (or self-rule) in decision-making. Scope refers to the width and range of competences that have been reallocated” (Jensen et al., 2014, p. 1239). In this case, one can expect that those government levels with more competence depth within one domain would have more power to influence it.

Moreover, the distributional implications mean that actors not only exploit the rules to their convenience but also that they can take advantage of their “openness”. This causes institutional ambiguities, which give the actors room of maneuver to lean the balance of power and influence the political processes (A. Sheingate, 2010). Each actor’s strategy will be based on how they use their attributions and the opening of the rules to meet their objectives or fulfill their interests.

Going back to the argument, the implications of institutional allocation and its power distributional features mean that *while dealing with fragmentations, institutions represent opportunities for actors to deploy strategic behavior and influence policy. Institutions assign formal competences to fragmented actors within governance arrangements to integrate their actions towards a policy objective. While doing so, institutions distribute power and create ambiguities, opening opportunities for the actors to use them as resources to influence a particular domain and advance their interests.*

Institutional implications for coordination processes don’t end up with its distributional features. Another premise of historical institutionalism is that the temporal sequence of events and processes helps to understand the complexity of social dynamics (Mahoney, Mohamedali, & Nguyen, 2016; Pierson, 2000b). To explain such assertion the approach coined the concept of path dependence or “social processes that exhibit increasing returns” (Pierson, 2000a, p. 252). In such a process, “the probability of further steps along the same path increases with each move down that path” (Pierson, 2000a, p. 252). Path dependent sequences lock-in outcomes in the long run, institutionalizing some aspects of social dynamics (Pierson, 2000b).

Under this assumption, adjustments and self-reinforcing processes end up institutionalizing specific patterns of interactions within governance arrangements. In other words, *a policy path creates particular dynamics leading to some “taken for granted” practices (Hall, 2016), according to which coordination processes will follow some foreseeable interactions.*

Albeit the locked-in patterns of interaction resulting from path dependent processes, institutions change, altering the power distribution and impacting the institutionalized practices. This can happen in two ways, either when major crisis or structural shocks disrupt the institutional arrangements or through incremental, piecemeal transformations (Mahoney & Thelen, 2010; Streeck & Thelen, 2005; Thelen, 2004). On the one hand, crisis or contextual shocks create critical junctures, directing the institutionalized patterns towards another path (Pierson, 2000b, 2000a). On the other hand, in her study of institutional change, Kathleen Thelen demonstrates that institutions are not just a residue of critical junctures but involve also “active political renegotiation and heavy doses of institutional adaptation” (2004, p. 8), implying that they are also product of small-scale, incremental changes. Balance of power therefore is transformed by major, abrupt changes but also through periodic readjustments and negotiations (Mahoney & Thelen, 2010; Thelen, 2004).

Such a dynamic character of institutions implies that governance arrangements are structurally contingent, shaped by time and space-specific institutional factors (Hyden, Court, & Mease, 2004) and would rarely remain static. While these constructs comprise institutionalized patterns of social dynamics between actors with different competences, they also experience transformations that modify what actors can do at some point in time, impacting the interactions. Arrangements may then suffer from either abrupt or incremental, piecemeal changes, shifting the balance of power (Mahoney & Thelen, 2010; Pierson, 2000a, 2000b). This means that the taken for granted practices can combine with political and institutional changes of the broader context (Pierson, 2000b, p. 83). Under these assumptions, *coordination will be a dynamic process, influenced by taken for granted practices combined with changes altering the power distribution, which in turn influence the actor’s strategies.*

1.4.1.2 Cognitive frameworks and coordination

Cognitive theories of public policy explain the organization of policy processes around ideational paradigms or frames of reference that lead to their stability over time (Muller, 2015; V. A. Schmidt, 2008). For Pierre Muller and Bruno Jobert (1987) policymaking takes place under a certain conception of reality according to which actors perceive the problem, envisage

solutions and define the possibilities for action. It is within these visions of the world or “*référentiels*” (referentials), where interactions situate, framing policies that appeal to a cognitive image of society (Muller, 2005, 2015). The authors distinguish two levels of *référentiels*: the global image of society in relation to the world, around which sectorial representations organize (*référentiel global*); and those perceptions from the dominant groups within a sector (*référentiel sectoriel*) (Jobert & Muller, 1987).

Global referentials are “constituted by the fundamental values of a society and the norms defining the role of the state in policymaking” (Muller, 2015, p. 56). The values within the global referential are far from coherent and can even be in conflict; however, they form a hierarchical system, “meaning that at a given time, some values will be prioritized over others” (Muller, 2015, p. 56). Sectorial referentials also contain a set of conflicting values, where those who dominate are commonly the ones linked to the hierarchy defined in the global referential. Under these circumstances, the different sectorial groups construct their identity and define their role within society. Therefore, referentials define not only the vision of the world for a particular group but also their specific place in the division of labor (or their place within society) (Muller, 2000, 2015).

Peter Hall coined a similar concept to explain the role of cognitive frames in policymaking. Instead of referentials, he wrote about “policy paradigms” as ideational frameworks for action within which sectorial actors define problems, instruments, and policy goals. In his words,

“[P]olicymakers customarily work within a framework of ideas and standards that specifies not only the goal of policy and the kind of instruments that can be used to attain them, but also the very nature of the problems they are meant to be addressing. Like a Gestalt, this framework is embedded in the very terminology through which policymakers communicate about their work, and it is influential precisely because so much of it is taken for granted and unamenable to scrutiny as a whole. I am going to call this interpretive framework a policy paradigm”(Hall, 1993, p. 279).

Just like Muller and Jobert’s *référentiel*, Hall’s policy paradigms contain underlying cognitive assumptions or principles guiding the interactions within a policy domain. However, both approaches differentiate in their focus: while the former links policymaking among sectors and with the general images of society, a paradigm concentrates on ideas dominating one domain

(Hall, 2015). Despite other epistemological differences⁷, both approaches share the core assumption that ideas are central to policymaking as a whole and within domains. And, as Muller states it's not just about the ideas, but the ideas in action (Muller, 2015).

In addition to the explanations of the stability induced by ideational frameworks, cognitive theories highlight the way actors conceive or define problems (Mehta, 2010). They use discourses to represent and convey their policy ideas (V. A. Schmidt, 2008) about situations that qualify as problems, to identify its victims, designate its causes, the responsible authorities and the guilty parties, to build future perspectives, and to demand immediate action to solve what they perceive as unacceptable situations (Cobb & Coughlin, 1998; Rochefort & Cobb, 1993; Zittoun, 2017). Problem definition processes are not free of conflict or, better said, they emerge precisely because actors with different points of view and varying levels of power and persuasiveness try to advance conflicting problem definitions, leading to negotiations around their understandings of an issue (Mehta, 2010).

During these processes, discourses enter in a “coordinative stage” where policy actors (i.e. civil servants, elected officials, NGO's, private enterprises) “engage in both, arguing and bargaining in their efforts to work together to build a common programme or to battle to impose their own” (V. A. Schmidt, 2002, p. 234). Discourses have, according to Vivien Schmidt (2002, 2008), a coordinating feature between policy actors seeking agreements on policy ideas. Therefore, the different narratives on what actors conceive as a problem are agreed upon through discourses. There is, however, the possibility that conflicts over problem definitions remain. The “fluid nature of constantly competing ideas” (Mehta, 2010, p. 33) may result in either (1) further disagreements over the problem definition, leading to repeated processes of coordinative discourses, (2) split actors into groups of supporters and detractors of a particular problem definition (Cobb & Coughlin, 1998), or (3) creating diverging problem agendas between government levels, leading to different views over the scale in charge of addressing the issue (P. W. A. Scholten, 2013).

Which are the implications for coordination? Based on the cognitive aspects of public action, *governance arrangements of environmental policies will be embedded into référentiels or paradigms that frame the interactions in two levels: a global – or general – reference of the State action that permeates into the general aspects of public policy across sectors; and a*

⁷ For example, Muller (2000) indicates that one of the main differences between both concepts are the conditions of their invalidation. While paradigms are invalidated through experimental verification, a *référentiel* will be invalidated through a transformation of the actor's beliefs.

sectorial reference or paradigm, with sector-specific ideas framing the policy goals, instruments, and the nature of the problem. Global and sectorial references not only define images of the world but also how actors perceive what their role should be. Following this line of thought, cognitive patterns influence coordination processes, defining the way actors address fragmentations and their mutual perceptions on how their actions affect each other. Additionally, actors within governance arrangements may have their own competing problem definitions, which could be either agreed upon through coordinative discourses or remain conflictual leading in turn to avoid interactions or even cause interferences.

1.5 A dynamic analysis of urban policy coordination

Based on the institutional and cognitive theories reviewed above, the thesis develops four hypotheses derived from the following assumptions:

1. Institutions assign formal competences to fragmented actors within governance arrangements to integrate their actions towards a policy objective. While doing so, institutions distribute power and create ambiguities, opening opportunities for the actors to deploy strategic actions and use them as resources to advance their interests and influence a particular domain. Therefore,

Hypothesis 1: If actors have convergent preferences, their use of competences and ambiguities will lead to positive or negative coordination. Conversely, if actors have divergent preferences, their use of attributions and ambiguities to influence the policy process leading to conflict and interference with other actors.

2. Path dependent processes institutionalize interaction patterns within governance arrangements. Actors interact according to such taken for granted practices leading to some expected outcomes during coordination processes. Additionally, governance arrangements of environmental policies operate through *référentiels* or paradigms that frame the interactions through a (1) general reference of the State action that permeates into the general aspects of public policy across sectors; and (2) a sectorial reference or paradigm, with sector-specific ideas framing the policy goals, instruments, and the nature of the problem. Therefore,

Hypothesis 2: Coordination processes operate under foreseeable institutionalized patterns and cognitive frameworks that define their interactions and their approaches to mutual dependencies.

3. Incremental and abrupt changes may lead to (1) a redistribution of competences, shifting the balance of power, and (2) transformations in the institutionalized patterns of social dynamics within the governance arrangements. In short, locked in institutionalized practices and cognitive frameworks combine with institutional and political changes altering the power distribution, influencing the actors' strategies. Therefore,

Hypothesis 3: Institutional change turns policy coordination into a dynamic process.

4. Actors within governance arrangements may have their own competing problem definitions, which could be either agreed upon through coordinative discourses or remain conflictual leading to avoid interactions or even interfere with each other. Therefore,

Hypothesis 4: Competing problem definitions may lead to either coordination or conflict.

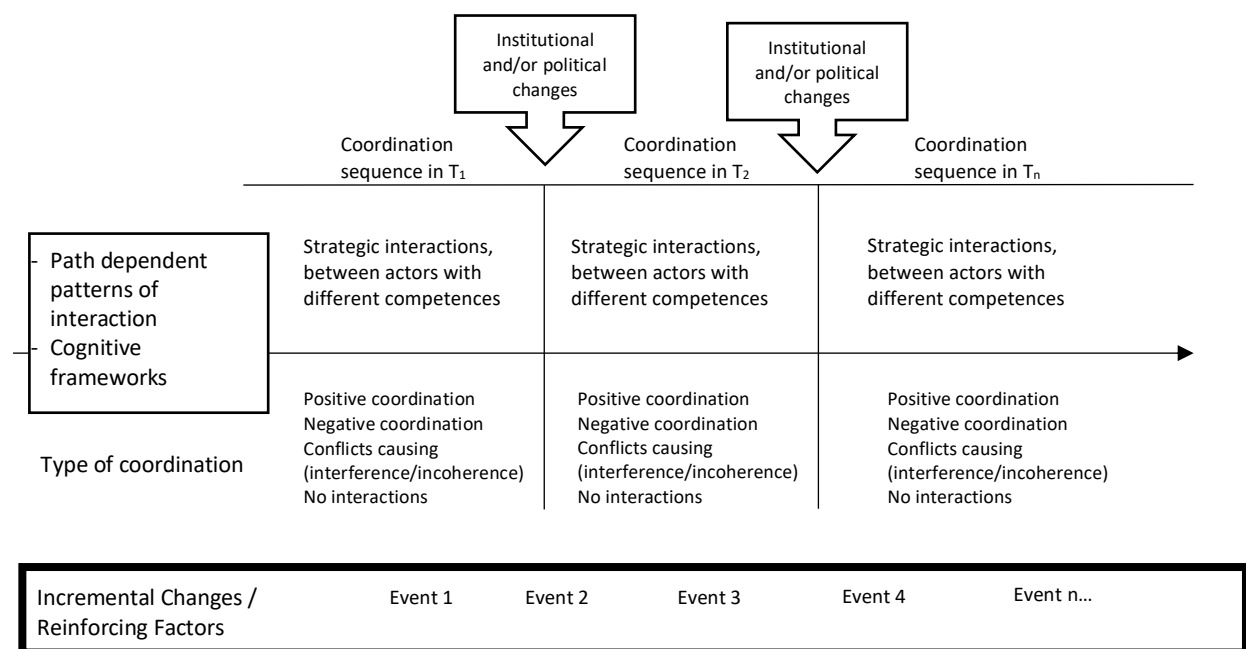
Following these premises, the thesis develops a two-step argument. First, policy coordination turns into is a dynamic process resulting from the interplay between (1) institutions that shape governance arrangements by distributing competences and establishing frameworks for action, (2) *cognitive frameworks* and *ideational processes* that define references, paradigms, and problems, and (3) the *strategic interactions* taking place within. The three elements combine, leading to positive coordination, negative coordination, or conflict. Second, those arrays remain steady until changes in the institutional context, either abrupt or incremental rearrange the interactions by altering the frameworks of action, leading to different *coordination sequences*. Hence, I argue that due to the changing nature of the institutional context, coordination processes are sequential, rather than one-shot interactions due to the interplay between the abovementioned factors.

The mechanism leading to different coordination sequences is as follows (Figure 1.3). Interactions in governance arrangements are path dependent and inserted in cognitive references; institutional adjustments and self-reinforcing processes institutionalize patterns of interaction through time by internalizing a set of values, meanings, practices, and belief systems. The combination of these factors defines a coordination sequence in T_1 where actors could either avoid interfering with each other's activities (negative coordination), carry out joint actions to attain specific goals (positive coordination), or engage into conflicts, which in

turn could lead to interferences or incoherencies.

However, governance is contingent upon the different times, contexts and policy domains where public action takes place. Therefore, if the institutional context experiences changes, either abrupt (such as context wide institutional changes, regime change, elections, or crises) or incremental (piecemeal institutional changes), we could expect readjustments in the arrangements, redefining the players and redistributing their competences. In other words, institutional and political changes reconfigure governance arrangements altering their power distribution and the type of exchanges and negotiations. The combination of those changes with the institutionalized patterns and cognitive frameworks leads to another coordination sequence in T_2 .

Figure 1.3 Coordination sequences in governance arrangements



Source: Own elaboration.

1.6 A comparative historical analysis of urban policy coordination

To analyze how institutions, ideas and interactions define the coordination of policies addressing the crises causing the urban environmental tragedy, this study uses a Comparative Historical Analysis (CHA) approach. CHA is a good match for this thesis due to its “macroconfigurational” orientation and its focus on problem-driven case based research with temporal orientation (Thelen & Mahoney, 2015). This means that a Comparative Historical Analysis seeks to explain either large scale outcomes or how structural variables play a causal role by shaping micro events. For that purpose, CHA takes a configurational and problem-

based stand, recognizing that interaction effects between various factors combine to form causal explanations of individual cases. Another feature of CHA is the study of temporal processes to bring explanations of political outcomes. It is about recognizing the effects of the variables attached to a temporal location and a temporal structure or, put differently, *when* processes occur and *for how long* (Pierson, 2000b; Thelen & Mahoney, 2015).

CHA has proven to be useful to understand coordination dynamics through time. Philipp Trein used this approach to study the coupling of policy sectors. His research portrays the dynamics of interrelation through time between health care and public health sectors (Trein, 2015, 2017b). In the same vein, Trein and Maggetti (2019) analyze time and context variations of integration and administrative coordination reforms. Comparative Historical Analysis is used here to unveil the policy coordination dynamics in governance arrangements. As this section shows, the study is developed through a comparative case study looking for the paths, ideas, changes, and interactions that define coordination sequences.

1.6.1 Case Selection

The adopted strategy for the comparison is a most-similar case selection based on structural and temporal features of two cities – Mexico and Paris – and air quality and climate change policies. The latter are related but independent, aiming to tackle similar problems leading to the “urban environmental tragedy” that nonetheless differ in their temporal distribution (time of presence and sense of urgency). According to Gerring, a most-similar analysis with two cases for hypothesis testing implies that they “exhibit different scores on the factor of interest and similar scores on all other possible causal factors” (2007, p. 131). The structure criterion refers to the institutional arrangements of both cities: Mexico City and Paris have gone through similar decentralization paths, with diverse changes in the institutional and political context but differ on the number and type of interactions with other government levels. The temporal dimension of the comparison concerns the policy domains. Air quality and climate change policies are similar because both face complex, cross-sectorial problems that present variations in the time dimension, being the former present for much longer than the latter and representing different types of crises (as shown below). Due to the structural and sequential nature of coordination processes, time and structure are therefore recognized as the two critical elements for the cases selection to develop the thesis argument.

1.6.1.1 Cities: Similar evolution processes with different structure.

Mexico City and Paris underwent similar transformations from State-controlled entities to more autonomous actors on policymaking. The changes have been incremental and differentiated to the other cities and local governments in their national contexts. For instance, the decentralization processes in the eighties in Mexico and France granted the local levels with more attributions that didn't reach the capital cities. One explanation of the State's longtime reluctance to give away its control over the capital cities may be found in their position in their national contexts. The two place themselves as the most important urban areas in their countries. Their relative weight in terms of size and economic performance is similar. Mexico City holds 17% of the total population and 23% of the GDP share, while Paris accounts for 16% and 30%, respectively. Generally speaking, they exert a dominant role in their countries, and for the sake of competitiveness they have historically been devoted a large amount of resources, treating them both as "national champions" (Crouch & Le Galès, 2012; Massey, 2007).

Gradual changes in the political and institutional spheres, however, empowered the cities and granted them with more autonomy. Mexico City remained as an administrative entity till 1996, when a constitutional reform got its first elected mayor (in 1997), from a party other than the Federal Government and in 2000 the hegemonic presidency regime went to an end. In Paris and in the Île de France Region, State agencies held a strong control over policymaking till the end eighties. The State's presence has decreased due to changes in the Hotel de Ville in 1996 that brought more political diversity to the capital and subsequent reforms that strengthened the regional council (in 1986 and 2004), the laws LAURE, NOTRe and MAPTAM and the reform of the Paris Statute.⁸

This evolution is evident when taking a closer look to the air quality problem, as the longstanding one. While the policies and institutional frameworks already recognized air pollution as a public problem, the involvement of Mexico City and Paris was marginal (see chapter three). It was not until the end-eighties -mid nineties when political and institutional changes altered the landscape for the deeper involvement of the cities and other levels of government. For instance, Mexico City attracted more formal policy competences after the '96 reforms and in the same year the local administration of Paris got its first formal attributions on pollution control by the recognition of the problem at the local scale (through the *LAURE*).

⁸ These characteristics are discussed in depth on Chapter 2.

In the latter case, also the Île de France region and other *collectivités* saw their attributions increased. In short, they both went through a process of change in the depth of power dispersion (see page 34).

The variation comes from the number of actors between whom power is dispersed, or the levels that hold competences on a specific policy. In cases where the depth of power dispersion is low (e.g. competences distributed among all the government levels) the variation in number goes from the minimum required for the interaction between two levels in the case of Mexico City, to the interaction between eight for the City of Paris. The former implies the interaction between the Federal Government and local governments of Mexico City and Estado de México. The City of Paris interacts with metropolitan communes from the *petit and grande couronne*, the Departments, the Etablissements Publiques de Cooperation Intercommunale (EPCI), the Metropolitan Authority (Métropole de Grand Paris), the Île de France Region, the State and even the European Union in terms of regulations.⁹ In short, the structural variation focuses on the complexity of the collective action problem, understood as the number of actors involved in urban policymaking.

Table 1.3 Most similar analysis of the cities with two case types for hypothesis-testing

Case types		X1	X2	Y
		Number of government levels	Decentralization path	Type of coordination process
	Mexico City	0	0	?
	Paris	1	0	?

Source: Own elaboration based on the case selection techniques from Gerring (2007)

1.6.1.2 Air Quality and Climate Change: Related problems with different timings

As mentioned in the introductory lines, cities are probably the most relevant contexts for the analysis of both policies. Cities are major contributors to climate change and air quality is considered an urban problem *par excellence*, causing annually around 2,400 annual deaths in Paris (Cambier, 2020) and 2,800 in Mexico City (WWF, 2019).¹⁰ Both problems are product of the fast growing urbanization causing an increase in pollutant emissions due to transportation, energy production and consumption, and industrialization (Baklanov et al., 2016). Apart from their importance for urban policy, the selection of air pollution and climate

⁹ The participation of lower levels, such as the *alcaldías* and *arrondissements* is marginal, therefore they are not considered because they don't hold any competence regarding the policies analyzed here.

¹⁰ Whereas in most countries air pollution is considered to have more severe impacts in urban than in rural areas, I am not considering that it is *exclusively* an urban problem. There are some cases in which it is more aggravating in rural areas. For example, in India, 75% of air pollution-related deaths are located in rural areas (Karambelas et al., 2018).

change allows to control for some factors. Both are considered technically and politically complex problems, located under the environmental domain, and have the crisis status turning them into salient issues. Moreover, they are cross cutting through diverse sectors and fragmented into various levels of government (low-depth power dispersion), allowing to look at the diverse relationships between cities and the other scales. Both contrast (1) in the type of crisis they represent and (2) their longevity as public problems.

Table 1.4 Most similar analysis of the problems with two case types for hypothesis-testing

Case types		X1	X2	Y
		Time variations	Complex problems	Type of Coordination process
	Air Quality	0	0	?
	Climate Change	1	0	?

Source: Own elaboration based on the case selection techniques from Gerring (2007)

1.6.1.2.1 Two related-but-different complex problems

Climate change and air pollution¹¹ are both commonly treated as subdomains of environmental policy (Castán Broto, 2017; Niles & Lubell, 2012; Ramírez de la Cruz & Smith, 2016). As such, both would belong to the same domain as, for example, the preservation of biodiversity or water conservation. They differentiate, however, in their technical and political complexities, that labels them often as *wicked problems* (Alford & Head, 2017; Crowley & Head, 2017; Head, 2019; Selman, 1999). As Alford and Head (2017) argue, the mere nature of the problem reveals its technical complexity by pointing out to whether the definition and the solutions of the problem are clear or not.

Political complexities comprise the propensity of the key actors and their institutional context to “enable the problem to be properly addressed” (Alford & Head, 2017, p. 403), which in turn depends on whether they have the proper knowledge of the problem, the degree to which they have conflicting interests and the relative power of the parties involved. Problems that are “technically clear” and with a cooperative community would be tame. In contrast, the ones without a clear definition or solution and whose stakeholders have conflicting values or interests, would be the most complex or wicked. The tameness or wickedness of a problem would therefore be a matter of degree. Table 1.5 shows the type of technical and political complexities of both problems.

¹¹ Climate change will be also referred as *global warming* whereas air pollution will be also termed as *atmospheric pollution* or *air quality*.

Table 1.5 Complexity dimensions for climate change and air pollution

Dimension	Type of complexity	Description
Technical	Related but different problems	Air quality and climate change share some of the same emission sources.
	Cross-cutting	Across many sectors whose policy competences are scattered among levels of government.
Political	Sectorial interests from the many policy domains	Many actors with conflicting interests that form specific governance configurations in which there is an uneven distribution of power.

Source: Own elaboration based on Alford and Head (2017)

The technical complexities can be divided in two. A first, technical complexity, raised in the first pages of this chapter, is the relationship between both problems. When looking at figure and table 1.2 (pages 18 and 19), one can see that various compounds are indeed both (or at least related to), greenhouse gases and air pollutants, meaning that they could affect global warming as well as human health. Someone could argue then that air pollution is part of a wider climate change problem. It is not. Both problems are intrinsically related by the emissions and their sources but not by all of them. Even more so, the ones that do affect both, do it in a different degree. The main contributor to global warming is CO₂ with 76% of the emissions, followed by methane with 16%, nitrous oxide with 6.2% and other gases for the remaining amount (IPCC, 2014). According to this data, ozone (considered to be GHG and air pollutant) wouldn't be considered as the main driver of global warming while it is one of the mayor components of smog (WHO, 2019b).¹² In sum, not all GHG are health damaging and not all air polluting compounds contribute to global warming; and whenever they do, it's at a different degree.

Regarding their cross-cutting nature, greenhouse gases and air pollutants originate in diverse activities from many sectors such as industry, agriculture, transport, and waste (see figures 1.1 and 1.2). For example, electricity and fuel production (as an entire sector) are the main sources of CO₂, methane (CH₄), sulfur dioxide, and volatile organic compounds (VOCs); transportation

¹² Whether ozone is a mayor GHG or not is not for this research to judge. Neither to determine its incorporation on the guidelines for reporting GHG. Ozone is often mentioned as a GHG but no estimates of its contribution were found. That's why it is assumed that its contributions to climate are much lower in relation to other GHG.

is the main source of nitrogen oxides (NO_x) and emits important amounts of CO₂, CO, VOCs and black carbon (hence, particulate matter); manufacturing and mining both contribute to CO₂ and CH₄; waste management produces important amounts of CO₂ and methane; residential and commercial sectors are important sources of particulate matter, CO and CO₂; finally, agriculture and forestry are also major GHG contributors with 25 % of total emissions, mainly N₂O and methane (Ekins et al., 2019).

The relatedness and cross-sectorial nature of air pollution and climate change has policy implications. In a situation in which actions focused on climate change reduce methane emissions by targeting agriculture and /or waste, it would also reduce ozone concentrations caused by methane, having a positive impact on air quality as well. Now consider a climate strategy implemented to reduce CO₂ emissions. For that purpose, the use of diesel vehicles (as important sources of such emissions) is encouraged. As a result, CO₂ emissions would fall, and positive impacts could be observed in greenhouse gas amounts. Nevertheless, by privileging diesel over gasoline cars, the amounts of PM_{2.5} emissions (one of the most harmful air pollutants) coming from transport would increase, affecting air quality.

The fact that actions on one problem may lead to positive externalities for the other does not necessarily mean that they are explicitly tackling both problems. Policies regulating the emission sources have impacts on the receptors, leading to co-benefits or ancillary costs for either (Oliva et al., 2017). Economic theory would explain such situations by identifying air pollutants and GHG as substitutes or complements in the production processes (Holland, 2012). In the first example of the previous paragraph, they are complements because when methane concentrations decrease, ozone does as well, with co-benefits for air pollution. When they are substitutes as in the second example, then CO₂ emissions would fall, sending less greenhouse gases to the atmosphere but negatively impacting air quality with PM_{2.5} emissions coming from diesel-powered engines.

Let's turn to the second defining element of a complex problem, the role of the actors involved and their interests. The cross-cutting nature of air pollution and climate change involves the participation, at different degrees, of actors from several sectors and levels of government, with sometimes (if not most times) conflicting interests. Those actors form specific governance configurations where their conflicting interests and power struggles influence policy. In his classic study, Crenson (1971) showed how a local industry can influence for the non-decision of the authorities to address the problem of air pollution. Another example is that of California, where the auto industry lobbied to get stricter pollution standards so they could keep the

automobile as the main source of transport in detriment of developing alternative transportation modes, thus privileging road construction and car use (Gonzalez, 2002). Finally, in the case of Mexico, the federal Secretary of Economy forged alliances with the car industry whenever regulations were to be revised, leaving the National Institute of Ecology¹³ with no support from the federal government to push for stricter controls (Interview 39).

1.6.1.2.2 Time variations. Pace and time of presence

1.6.1.2.2.1 The type of crisis defines the pace

Both policies have time variations in two ways. The first one is related to their crisis status. While climate change and air quality are catalogued as such, they both comprise the two types of crises identified by Anthony Downs: “One kind of crisis consist of a rapidly deteriorating situation moving towards a single disastrous event at some future moment. The second kind consists of a more gradually deteriorating situation that will eventually pass some subtle “point of no return””(1972, p. 45). When pollutant emissions exceed certain thresholds, air quality turns into the first type of crisis identified by Downs. The rapid deterioration of air quality generates pollution peaks, which are disastrous events with health threatening effects. Public policies are implemented to minimize their probability of occurrence and whenever these situations arise, the main objective is to “get things back to normal”.

Climate change belongs to the second category. Tosun and Howlett (2021) define it as a “slow onset event” because despite its catastrophic effects, it is not often seen as an urgent matter, delaying the policies to address the problem. The gradual evolution of these events create a “perception of lack of urgency”, ceding its spot in the agenda to more urgent or crisis-like events (Blair et al., 2018 in Tosun & Howlett, 2021). The two types of crises imply different paces of the policymaking processes of each domain. This is a relevant distinction because the different problem perceptions (urgent vs slow-onset) lead to different coordination dynamics due to the sequential nature of these processes.

1.6.1.2.2.2 Old vs new problems

The second type of variation refers to the time of presence of the issues in the governmental agenda. Climate change raised as a concern of the international community in 1979 with the First World Climate Conference in Geneva. Subsequent conferences and actions continued at

¹³ Till 1999 the National Institute for Ecology was the institution of the Mexican Federal Government in charge of defining norms and regulations on everything related to environment.

the international level¹⁴ but it wasn't until the 2000's decade when Mexico and France adopted specific programs or plans created to fight climate change.¹⁵ In the case of France, the first national program was created in the year 2000 and the *Plan Climat* introduced in 2005. In Mexico, the first National Strategy on Climate Change was created in 2007 and a Special Program on Climate Change was issued in 2009. Later, in 2012, the federal government issued the General Law on Climate Change. At the city level, the first Energy-Climate Plan of Paris was issued in 2007 and in Mexico City, the Local Strategy on Climate Action was published in 2008. Then, Mexico City issued the Law for Mitigation and Adaptation to Climate Change and Sustainable Development in 2011 (one year before than the federal law).

Air pollution has a much longer history in both countries. In France the issue started to gain attention in 1954 with the first pollutant records in Paris (Vlassopoulou, 1999). The next decade was issued the *Law No. 61-642 of August 2-1961 on the control of air pollution and odours* (LOI n° 61-642 du 2 août 1961 relative à la lutte contre la pollution atmosphérique et les odeurs). For the case of Mexico, the *Federal law to prevent and control environmental pollution* (Ley Federal para Prevenir y Controlar la Contaminación Ambiental) dates from 1971. While the laws date from the 60's and 70s, it took some time to develop local actions or plans to fight air pollution (see chapter 3).

In both cases the issue was initially managed exclusively by the central government with little involvement of the city; it was a “national urban policy” defined by the national governments but directed to the cities (OECD, 2017). After political and institutional changes, the issue went to have a more direct involvement of the local and regional governments. In the case of France the city hall began to get actively involved in the mid 90's. Actions towards air pollution intensified with the arrival of Bertrand Delanoë as mayor mainly due to the coalition with the Green Party (Halpern & Le Galès, 2019). The involvement of Mexico City was in the early 90's. The political turmoil of that time and the views and political aspirations of the Mayor Manuel Camacho Solís made the issue a local concern. The city's presence intensified at the end of the decade when institutional changes lead to the first elected Mayor of Mexico City in 1997, resulting in more autonomy.

¹⁴ One of the most relevant events were the establishment of the Intergovernmental Panel on Climate Change in 1989 and the Third United Nations Climate Change Conference in Kyoto in 1997, when countries adopted a protocol that engaged them to reduce their GHG emissions that came into force in 2005.

¹⁵ I'm not implying that they didn't have any actions regarding climate change before the plans. Plans or laws are considered to be the starting point because it's when both countries assume the issue as one separate subject and not only as spare actions.

As we can see, there is a wide variation in existence of the problems in both contexts. Air pollution is an old problem, that dates from the 60's in France and 70's in Mexico, while climate change is a “newer” issue. The fact that air quality has been present for some time helps to see the change on the role of the city and its relationships with other actors. On the other hand, a “younger” problem that was adopted by the cities only a few years later than the central governments could reveal different dynamics due to the sequence of interactions.

Air quality went from being a national problem to a local one. At the same time, cities were going through a transformation, from centrally controlled entities to more autonomous actors, gaining attributions and redefining the power relations. Both were parallel events, therefore tracing how the city gained ground on the air pollution problem, will explain the features of the type of relationship we have now. Conversely, the fact that climate change arrived in another stage of the “transformation” of the city (when it was already more powerful, with more attributions) may explain other type of relationship. The difference here is on the number of changes and the type of institutionalized relationship: that of an ancient policy, paired to the transformation of the city against that of a new policy, that was implemented once the city went through some changes. The intersection of the cities and policies leads to a matrix as the one depicted in table 1.6.

Table 1.6 2 x 2 Matrix for case selection

Degree of power dispersion/ Time variation	Older problem	Newer problem
Low power dispersion	Air quality policy in Mexico City	Climate Change policy in Mexico City
High power dispersion	Air Quality Policy in Paris	Climate Change policy in Paris

Source: Own elaboration

1.6.2 A qualitative analysis of the interactions

1.6.2.1 Method of analysis

The analysis concentrates on looking to how institutionalized interaction patterns, cognitive frameworks and institutional and political changes affect the interactions within governance arrangements, leading to positive coordination, negative coordination, or conflict. As previously defined, positive coordination is when actors interact under a joint approach towards a specific objective; negative coordination is when actors develop their tasks without interfering with each other; and conflict is when actors deliberately interfere with each other, which could lead to incoherencies.

The research method follows three interrelated steps. The first objective was to recognize the public and private actors composing the governance arrangements for each policy and their competences. This allowed to identify the players, the rules of the game and the distribution of power. For that aim, in this stage I carried out a documental review of the formal institutional framework of each policy, by looking into laws, plans, programs, regulations and other official documents. This review was complemented by publications either academic or reports by international organizations (such as the World Bank, the OECD or diverse UN agencies – i.e., Habitat or the United Nations Environmental Program) or non-governmental organizations (NGOs). This activity was simultaneous for both policies because they belong to the environmental domain and due to their abovementioned technical connection, many laws, norms, plans, and governmental organizations address air quality and climate change affairs (for example, the Regional and Interdepartmental Direction for the Environment, Planning and Transports in Île de France, the Secretary of Environment in Mexico City or the Île de France's Direction for the Environment). The identification of the actors and their competences was complemented by the snowball effect from the first round of semi-structured interviews in each city. Not only did the first interviewees pointed out the actors involved in each policy, but they also helped to contact them.

Steps two and three were not necessarily sequential and involved simultaneous inductive and deductive reasoning. With the governance arrangements mapped out, the main objective was to identify the effects of institutionalized patterns and cognitive references on the interactions, leading to positive/negative coordination or conflict. In principle, the longitudinal analysis would allow to identify the abovementioned elements and then, whether changes in the institutional context led to different coordination outputs. However, the process was more entangled than that. Throughout the interviews, media review (newspapers, press releases, twitter, magazines) and archival review (older documents from previous periods such as the first plans, reports, council meetings in the case of Paris or Congressional proceedings in Mexico City) it was possible to identify some patterns, references and discourses clarifying the actors' positions in both problems (i.e., their problem definitions) through time. At a certain point, however, the sources revealed whether some contextual or incremental changes affected the interactions. In that case, it was worth combining simultaneous inductive and deductive reasoning or, in other words, to “take one step back and one step forward” to explain the conditioning elements of the interactions before such changes and, consequently, to understand their impact.

This kind of reasoning has been applied to understand policy processes. Richard Elmore (1980) coined the concept of *backward mapping* as an implementation strategy to increase the chances of policy success. According to the author, the analysis begins with “a statement of the specific behavior at the lowest level of implementation process that generates the need for a policy” (Elmore, 1980, p. 604), and only then, the policy sets up an objective and backs up to the set of implementing agencies and processes that are more likely to have an effect on the desired outcome. For analytical purposes this means that a situation (i.e. the one that needs a policy intervention) explains the primal arrangements (or the “original state” of the organizations and agencies before the policy was implemented) and rearrangements coming after a change (policy in this case).

In this case, changes, either abrupt or incremental, may show not only how interactions changed once they have occurred, but also going “backwards” allowed to raise the question on which elements of those changes were either absent or present before. This helped to (1) build a more exhaustive explanation of the institutionalized patterns and cognitive frameworks affecting the interactions, and (2) the extent to which institutional and political changes altered those features.

For example, consider a situation where two actors, the city, and the central government, have similar conceptions on the problem definition and the means to solve it because both are ruled by the same party. They both engage in joint actions (positive coordination), using each one their competences to tackle the problem. Then, political changes in the form of elections reconfigure the power distribution between the political parties. Imagine then two possibilities: (1) there is no new coordination sequence because both actors keep engaged in joint actions despite different problem conceptions; or (2) changes lead to another coordination sequence because interactions result in conflict due to different problem definitions. In the first possibility institutionalized patterns and/or cognitive frameworks were determinant to maintain certain stability in the interactions. In situation number two, one explanation could be that the preferences leading to diverging problem definitions were determinant to explain the breakups either due to preexisting differences that were enhanced by the political change or by weakly institutionalized interaction patterns.

1.6.2.2 Data Collection

The evidence used to demonstrate the argument comes from different documental and digital sources and interviews. Semi-structured interviews are the backbone of this thesis. They were

useful to identify the policymaking processes and the interactions taking place within. They were also source for other important pieces of evidence either by direct references from the interviewees or by giving some hints for the paths to follow. As Tables 1.7 and 1.8 show, I interviewed a total of 85 public and private actors coming from different sectors and government levels. The idea here was to cover the most exhaustive range of actors that were present in the governance arrangements in both cities and domains. There are some particularities worth mentioning. In the case of Mexico, various actors have held multiple positions at the local and federal level and even in the non-governmental sector. This feature of environmental policy in Mexico allowed to enrich the information because they gave an extensive historical account of the policy developments. Some of them were even present when the problem got into the governmental agenda in the late eighties, witnessing the policy evolution. To a lesser extent this feature was also present in the Parisian case, with some public officers holding positions at the local and regional level.

The main points of the interviews were the following:

- Their organization's role in the general policy domain.
- If the organization developed joint measures with others and to what extent its objectives were coherent with other organizations.
 - o Identification of the overlaps and incoherencies.
- Their main points of interaction and conflict.
 - o If they had some issues to advance but no competences, which were their strategies to influence policy.
- Their perceptions of the interactions between all the actors within the governance arrangement.
- The main incentives, mechanisms, and constraints for coordination.
- To what extent the non-governmental sector participates in policymaking.
- If the actors were active in other periods, they were asked to identify changes in the interactions.

Most sources proved useful in all the steps of the analysis; however, they varied in their relevance depending on the components of the argument. Official documents (laws, plans and programs) were essential to locate the actors and their competences in the governance arrangements. Equally important were the websites of the central and local secretaries and ministries that allowed to review the organizational structure of the governmental agencies.

Academic publications, newspaper articles and reports from NGOs helped to locate the non-governmental actors and the temporal dynamics of the policy along with other events.

Table 1.7 Number of semi structured interviews by sector in Mexico City

Sector	Number of Interviews
Local Government	16
Federal Government	14
Non-governmental organizations	12
Environmental Commission	2
International Organizations	1
Total	45

Table 1.8 Number of semi structured interviews by sector in Paris

	Sector	
City level	City	7
	Paris Council	3
Metropolis	Executive	2
Region	Executive	6
State	Territorial Services	4
	Police Prefecture	3
	Ministry	3
	Prefect	1
	ADEME	1
Public Organizations	AIRPARIF	2
	APC	1
	EDF	1
Non-governmental organizations		2
EPCI	Plaine Commune	2
Departments	Val de Marne	1
	Seine Saint Denis	1
Total		40

Regarding the cognitive frameworks and problem definitions, the semi-structured interviews proved to be determinant. They provided the point of view of each actor and allowed to see to which *référentiels* or paradigms the actors attached their discourses. The proceedings from council meetings (in France, at the city, regional and metropolitan levels) and congressional speeches (for the case of Mexico City) also conformed an important ideational source. They unveiled the main discursive struggles, reflecting the problem definitions from the different political forces. An unexpected source of the ideational references affecting the interactions were the presentations or prefaces of plans and strategies. Sometimes, these documents include

a preface signed by the highest authority of the domain (the Mayor in the case of a local plan or the Prefect, Minister or Secretary in the case of a State-level plan), revealing the main objectives and also the orientations of such strategy. It is a rich source of information because it unveils the perception of the mutual dependencies. In the case of Paris, for example, it revealed whether the city considers climate change as a local, metropolitan, or regional issue. Depending on the orientation, the city will consider (or not) to engage in joint actions with such actors.

Semi-structured interviews also turned to be the main information source for the interactions, showing the extent to which actors recognized their mutual dependencies and how they intended to use their competences to influence policymaking. However, in this case, they were more a guide than a *fait accompli*. This means that to eliminate possible biases, they were either contrasted between them (i.e. if two interviewees from opposition parties point in the same direction, then the risk of bias could be nuanced) or matched with other official documents or actions. At the end, they conform perceptions that need to be contextualized, contrasted, and validated with other pieces of information to avoid any sort of distortion. Press releases, media interviews and even twitter also were useful information sources for the interactions. These sources revealed the actor's formal policy positions and reactions. Moreover, they were useful to get the position from high level governmental actors such as the Mayors, the Regional Council Executive, Congresspersons, Secretaries and Ministers.

1.7 The organization of the dissertation

It is divided into four parts. The first one consists of this introductory chapter and a second one whose purpose is to explain the main governance features of both cities. Such rather brief and descriptive chapter introduces general elements guiding the relationship between the cities and the actors of the four governance dimensions. The next two parts comprise the empirical study. Part II consist of three chapters drawing on air quality policy. Chapter three presents the main coordination dynamics in both contexts leading to define the problem as a local matter. As the chapter shows, the process was the result of coordinative discourses resulting from political and institutional changes. In Chapter four the case of air quality policy coordination in Mexico City depicts institutionalized blame avoidance dynamics which in combination with institutional and political changes led to three coordination sequences, the first two of positive coordination and one ending up in conflict. The Parisian case presented in Chapter five identifies two coordination sequences divided by the region's political orientation. The region's institutional mandate to preserve territorial cohesion, its self-identification as the "real

metropolis”, the State’s historical control of the Parisian region, scale differences, as well as incremental institutional changes that altered the power balances between all the actors, led to a sequence of positive coordination between the city and the region and another one ending up in conflict.

Part III addresses the cases of climate change policy. Whereas the interactions within air quality are more polarized, leading either to positive coordination or conflict, the defining feature of climate change dynamics was the absence of conflict. Due to different timings in the policy adoption between the cities and other actors in their contexts, and different problem framings – the cities see it as a matter of greenhouse gas reduction while higher government scales see it as a by-product of energetic transition – the interactions followed parallel paths. Albeit this disconnection, there are no policy incoherencies in the coordination sequences. In Mexico City, the adoption of climate change policy coincided with political disputes with the federal government, separating local and national policy developments. During this time, the city developed policy capacities, putting it in a frontrunning position. By the time a federal law intended to foster coordination it was just too late to reconcile national and local developments. This factor plus institutionalized patterns (such as an historical recognition of the city as an actor without competences in the energy domain, and the federal government’s centralist tradition) led to negative coordination.

The situation was similar in Paris. Adopting a climate change policy before its counterparts placed the city in a leading role, developing capacities and advancing the other communes and the region. This created a sense of self-sufficiency to reach its own greenhouse gas reduction targets. Additionally, the city’s problem definition as a metropolitan matter with a global outreach refrained it from engaging in interactions with actors other than the *Métropole du Grand Paris*. Despite the disconnection there were no incoherencies cases because (1) meeting one’s objectives does not interfere with others and (2) energetic transition has positive externalities in greenhouse gas reduction. Chapter eight includes the concluding remarks, highlighting the main findings of the comparative study, the thesis contribution, its main limitations, and further research avenues.

Chapter 2. Governance arrangements in Mexico City and Paris

2.1 Introduction

As country capitals, both cities have undergone differentiated decentralization processes compared to other local governments in their countries. Throughout this path, Mexico City and Paris went from highly centralized entities to more autonomous governments. However, they differ in their structural conditions regarding the type and number of actors they interact with during policymaking. This rather short, rather descriptive chapter gives a more detailed account of the historical and structural elements that shape governance dynamics in both cities. These elements serve as inputs for the explanation of the coordination processes in the empirical chapters (3 to 7). For that purpose, the chapter divides into two broad sections. The first one focuses on the structural dimension by giving a general overview of the territorial divisions as well as the number and type of actors in each context. This part shows that in Paris interactions are more complex due to the higher number of government levels and the distribution of competences.

The second section addresses the political dimension, showing two aspects. First, the cities' transition from centralized to more autonomous entities. While Mexico City achieved gradual autonomy, the State retains control over some Parisian affairs (i.e., police corps). Despite this shift, the next chapters show that the centralist legacies in both cities remain, defining a *référentiel* of central control. Additionally, the second part gives an account of the political conditions of partisan diversity in both contexts. Since the 1996 political reform, three political parties coexist in the Mexico City's metropolitan area; in Paris left and right-wing parties alternate in the city, the State, and the regional and metropolitan councils. However, in the latter case, partisan convergence does not necessarily lead to agreements between all the parties as the case of the creation of the *Métropole de Grand Paris* shows.

2.2 Structural conditions and different types of interactions

The two cities differ in terms of the complexity of their structure, understood as the number of actors they must interact with. Internally, Mexico City is divided in 16 *Alcaldías* (formerly called *Delegaciones*), administrative entities with competences limited to urban planning, the provision of some services (i.e., waste collection), granting construction permits and public works (See Map 2.1). Mexico City's Metropolitan Area, as officially delimited by the National Population Council (CONAPO), comprises 76 municipalities: all the 16 *alcaldías* from Mexico City, 59 municipalities from Estado de México and one from the State of Hidalgo. While the

population in the city is around 9 million, it reaches almost 21 million (in 2015) in the whole metropolitan area (see table 2.1). As Map 2.2 shows, the metropolitan governance dimension is mostly between Mexico City and Estado de México (EDOMEX); without any intermediate scale of government, the city interacts directly with the Federal Government. In short, the territorial structure of Mexico comprises three levels: municipal, state and the federal government.

Table 2.1 Mexico City and Metropolitan Area of the Valley of Mexico (ZMVM) figures

	Mexico City	ZMVM
Territory	1,494 km ²	7,866 km ²
Population	8,918,653 inhab	20,892,724 inhab
Population Density	5,967 inhab/km ²	2,656 inhab/km ²
Number of States	1	3 (Mexico City + Estado de México + Hidalgo)
Number of municipalities	16	76

Source: CONAPO (2018)

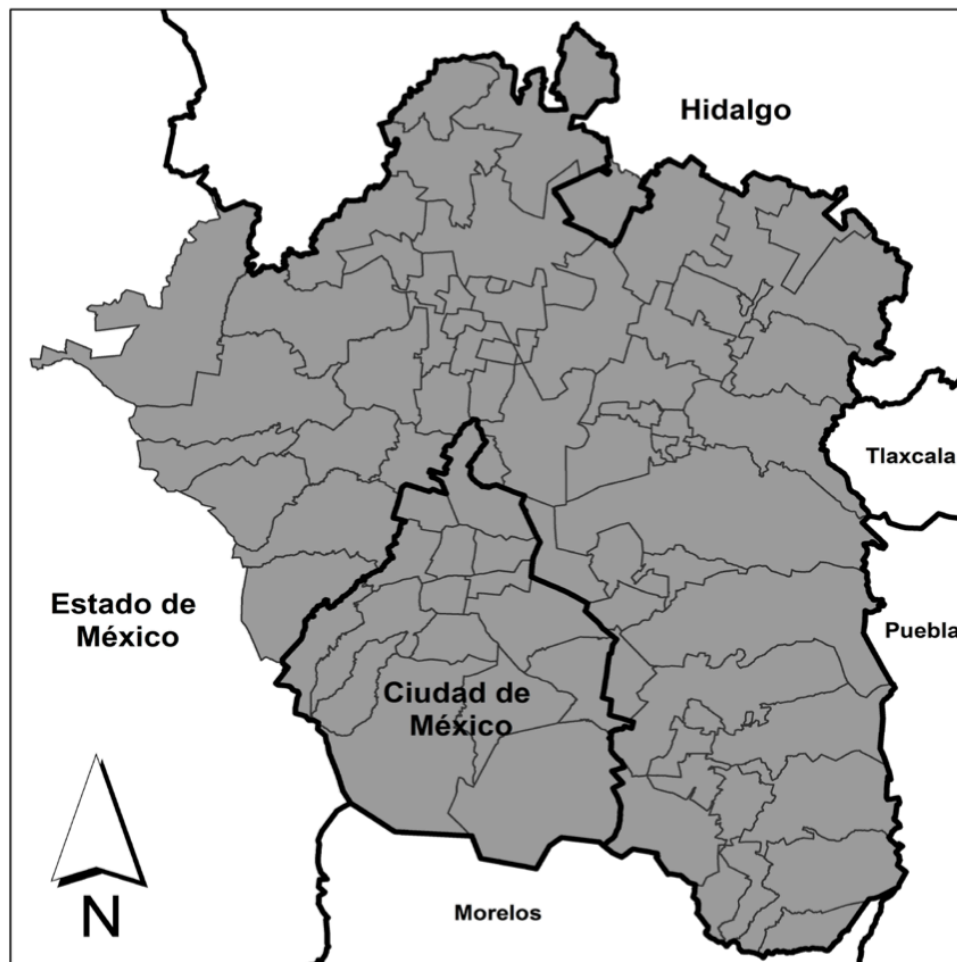
Map 2.1 Mexico City



Source: INEGI (2021)¹⁶

¹⁶ Retrieved November 8, 2021 from http://cuentame.inegi.org.mx/mapas/pdf/entidades/div_municipal/cdmx_demarcaciones_color.pdf

Map 2.2 Metropolitan Area of Mexico City



Source: Salinas-Arreortua (2017)

For the city of Paris, the structural dimension is more intricate than in Mexico City. Internally, the city divides into 20 *arrondissements*, whose mayors have limited competences on the management of some proximity facilities (i.e. small green spaces, day care centers) and to administer local finances. They have “voice power” to give their advice on urban planning. Besides those attributions, the local administration remains highly centralized, just as in Mexico City. However, the cities differ widely in the metropolitan and multi-level governance dimensions. Instead of three government levels for the case of Mexico, the city coexists with seven other scales: the communes, departments, *Établissements Publics de Coopération Intercommunale* (EPCI), the Métropole du Grand Paris, the Île de France Region, the State, and the European Union. Table 2.2 shows a summary of their competences.

Table 2.2 General subnational competences

Collectivité	Competences
Region	Economic development, territorial planning, non-urban transport, high school management and professional training.
Métropole du Grand Paris	Planning of the metropolitan space; local housing policy, economic, social, and cultural planning; protection and improvement of the environment and the quality of life (management of water bodies and flood prevention).
Department	Social action related to childhood, handicap, the elderly, solidarity, income; infrastructure related to ports, airfields, and roads of departmental jurisdiction; school management and municipal aid.
Commune	Urbanism, housing, environment, management of pre-elementary and elementary schools.

Source: Own elaboration with information from the Ministry of Territorial Cohesion and the Relationships with Local Governments (2020) and the French Government (2021).

Two scales merit a clarification, the EPCI and the *Métropole du Grand Paris*. The EPCI does not appear in the table because it is an agglomeration of *communes*, whose competences are decided by its members. While attributions can vary from one EPCI to another, they are mostly centered in managing public services such as waste collection, sanitation, or in developing urban and economic planning. The Métropole is a type of EPCI, created by the *Loi du 27 janvier 2014 de modernisation de l'action publique territoriale et d'affirmation des métropoles* (MAPTAM), which along the *Loi n° 2015-991 du 7 août 2015 portant nouvelle organisation territoriale de la République* (NOTRe), determine its competences. Just as the City of Paris and the Region, the MGP has a council comprised by at least one representative from each one of its members. Within Île de France diverse EPCI coexist with the *Métropole du Grand Paris*, which means that there are “two levels” of municipal agglomerations.

All the above mentioned *collectivités* have different dates of appearance in the territorial organization. Communes and departments are the oldest, dating from 1789. EPCIs had their first appearance as *syndicats de communes* in the *loi du 22 mars 1890*. Before the Metropolis, the title of the youngest institution in Île de France belonged to the regional council. It surged in 1976 as part of the regionalization process initiated in 1972. Its status back then was of an *Etablissement Public Régionale* with limited competences, mainly devoted to public investment. Later, the 1982 and 1983 decentralization laws provided the regions with formal attributions mostly on economic development, territorial planning, education and transport (first limited to route planning) that won't be exerted until 1986, when Île de France got its first regional council in place.¹⁷

¹⁷ The 1982 law gave the Regions the status of “collectivité territoriale” meaning that they were not subordinated to any other kind of actor. However, according to the document, the status of a “collectivité” could only be obtained if they count with an elected council. The law didn't give any kind of procedure for the elections, leaving

Table 2.3 City of Paris, Métropole de Grand Paris and Île de France Region figures

	Paris	Grand Paris	Île de France
Territory	105.4 km ²	814.2 km ²	12,012.3km ²
Population	2,175,601 inhab	7,075,028 inhab	12,213,447 inhab
Population Density	20,641.4 inhab/km ²	8,689.1 inhab/km ²	1,016.7 inhab/km ²
Number of Collectivités	20 arrondissements	131 communes from 4 departments	1287 communes in 8 departments

Source (Insee, 2021)

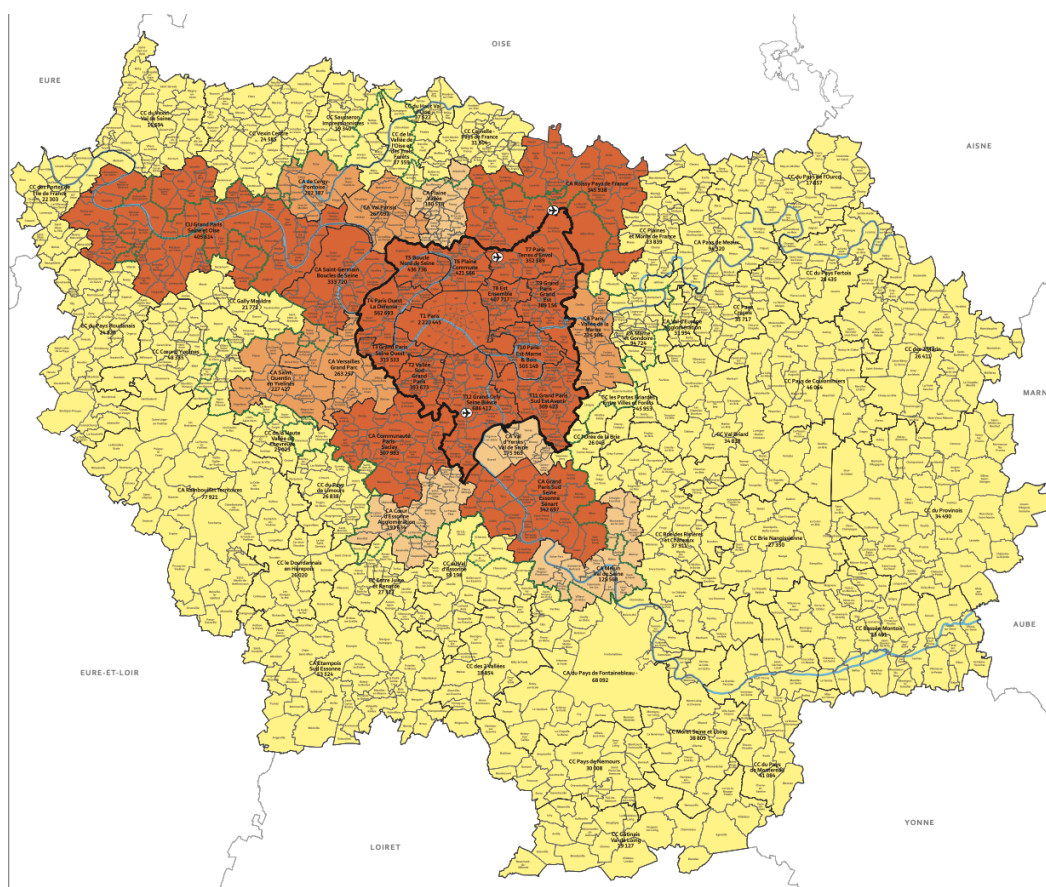
Maps 2.3 and 2.4 illustrate the complexity of the city's interactions (the number of actors). Map 2.3 shows the entire landscape of Île de France Region (in yellow), comprising its departments, communes, the metropolis (inside the thick black line) and the City of Paris in the middle. A close-up allows to see in-detail the contiguous EPCIs, departments and communes (Map 2.4). Besides the administrative division, Île de France has a “functional distribution” of three concentric circles, starting by the city of Paris, the *petite couronne* or the neighboring departments (Hauts-de-Seine, Seine-Saint-Denis, and Val-de-Marne), and the outer departments known as the *grande couronne* (Seine-et-Marne, Yvelines, Essonne and Val-d'Oise).¹⁸ The city of Paris interacts horizontally with neighboring communes and departments from the *petite couronne* due to its “particular status”, holding the competences of both.¹⁹ Vertically, the city locates inside and interacts with the *Métropole du Grand Paris* and the Region Île de France.

the regions in a sort of limbo. The electoral process was defined in 1985 and the elections were finally held in 1986.

¹⁸ *Petite Couronne* departments have a population of 4,648,710 inhabitants and from the *grande couronne* it's of 5,389,136.

¹⁹ Before 2019 the city was both, the commune of Paris and the Department of Paris. The *LOI n° 2017-257 du 28 février 2017 relative au statut de Paris et à l'aménagement métropolitain* created a “collectivité à statut particulier, au sens de l'article 72 de la Constitution, dénommée “ Ville de Paris ”, en lieu et place de la commune de Paris et du département de Paris” (French Government, 2017).

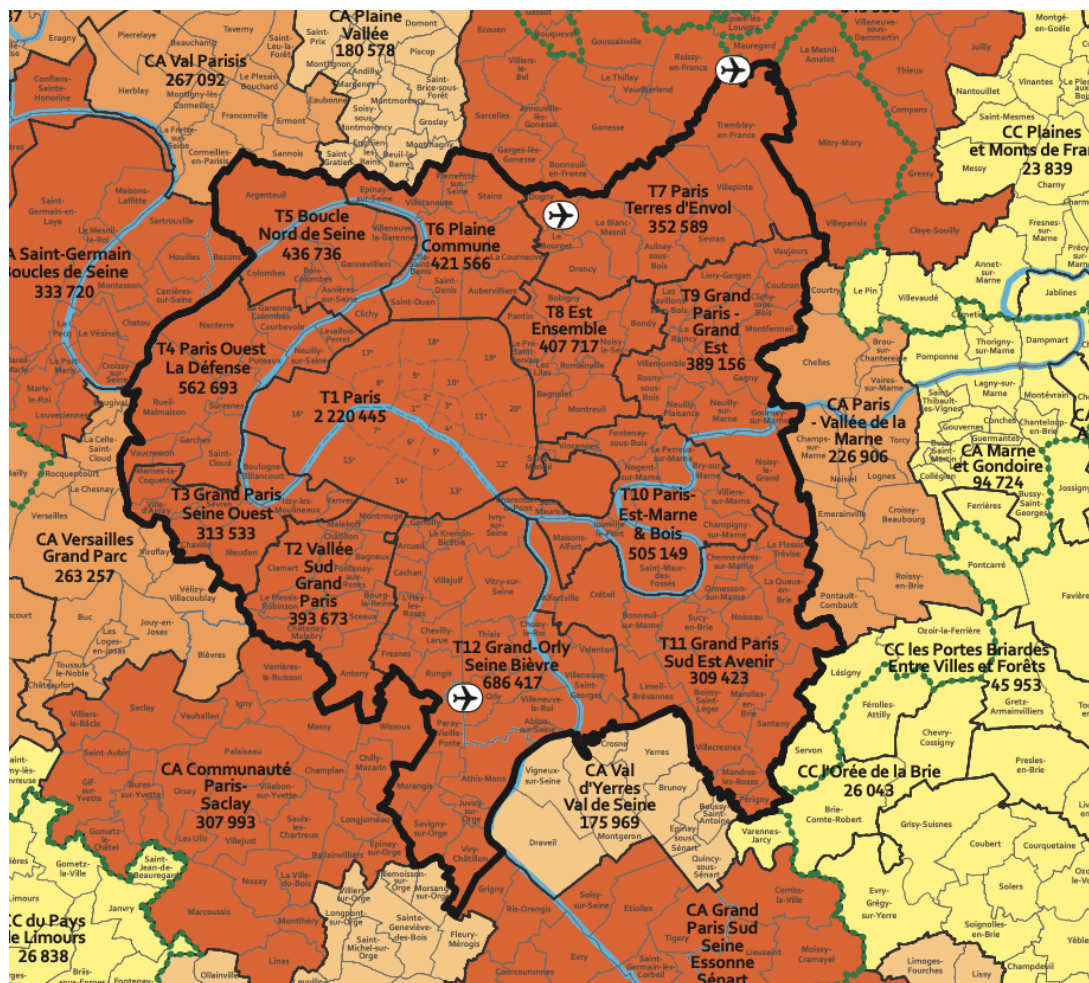
Map 2.3 Île de France region, Métropole du Grand Paris and Paris



Source: APUR – Carte 2017 des intercommunalités en Île de France²⁰

²⁰ Retrieved November 8, 2021 from <https://www.apur.org/fr/file/40631/download?token=NlpXQvGq>

Map 2.4 The Metropolis and the City of Paris



Source : APUR (2017). *Ibid.*

2.3 Political dynamics: capital city status and different decentralization timings

Both cities followed differentiated decentralization paths in their contexts due to their capital city status. In Mexico City, the process took place after a series of reforms thirteen years after the other local governments. Paris got its first elected mayor in 1977, while other local governments held municipal elections since 1884. This section provides a brief overview of this evolution and other contextual features of both cities that allow to understand the relationship between them and other government levels.

2.3.1 Mexico City: from an administrative sector to an autonomous entity

After a fiscal and administrative crisis in 1982, the Mexican federal government needed to alleviate the fiscal overload without hampering the levels of investment and expenditure in subnational governments (Aguilar, 1996). Therefore, a major constitutional reform in 1983 sought to strengthen the administrative, economic and political autonomy of states and municipalities by redistributing faculties and attributions among the government levels

(Beltrán & Portilla, 2010). The formal decentralization process continued in the years to come, along with other administrative and political changes.²¹

However, it took many years to achieve the fruits of this reform because policymaking remained highly centralized in most policy sectors. The reason for this was the strong policy control held by the executive under the governments of the Institutional Revolutionary Party (Partido Revolucionario Institucional- PRI). For more than 60 years, Mexico underwent through a hegemonic party regime, characterized as a form of “hyper-presidentialism”, where the president concentrated absolute power through constitutional and extra or meta-constitutional powers (Carpizo, 2002; Serrano Migallón, 2006; Ugalde, 2000).²² Under the PRI regime, the party “permeated” the political institutions and defined its behavior.²³ It created an “indivisible and unitary government” in the three branches (executive, legislative and judiciary) and levels of government – federal, state and local (Casar, 1996). The president was the key and the center of the whole system. The executive’s *de facto* appointment as the party leader allowed it to control the access to the popular elected positions in the Congress, state, and municipal governments, giving the president the power to freely name (and remove) those positions. Such arrangement began to weaken in 1988 and was formally over in 2000.

Under these conditions, all the sectors (of which Mexico City was part as an administrative entity), branches and levels of government were under the president’s command. Everything demanded by presidential instruction or decree had to be implemented. Basically, the institutions operated under the president’s will, concentrating all mayor decisions and policy actions in the federal secretaries.

Where does the city stood during that time? From 1917 (when the actual constitution was enacted) to 1996 Mexico City was conceived as an administrative entity under direct presidential control. There was an effort to remove any “political identity” due to previous

²¹ In addition to these changes, other constitutional reforms took place in 1994 and 1999. In '94 the Article 104 of the Constitution changed to allow any level of government to submit constitutional controversies to the Supreme Court. In '99 the reforms of Article 115 sought to give the municipalities the freedom to rearrange their local administration, enhance political plurality to the members of the local council and more financial autonomy.

²² The so-called extra constitutional powers of the president were a set of informal faculties, not included in the Constitution but emanated from the political system (Carpizo, 1978, 2002) and vouched by the political actors. This internalized a generalized idea that the president had the right to exert them (Serrano Migallón, 2006). For example, the president had the informal (but normalized) attribution to appoint the person to succeed him after his 6-year term.

²³ In the late 1930’s the Mexican Revolution Party –that later evolved into PRI –under the leadership of President Lázaro Cárdenas added up to the party structure diverse social groups that were decisive for conducting the state affairs: former revolutionary leaders, economic forces, the Congress, social leaders and participants to the presidential succession process. This strategy is known as corporatism, which made possible to concentrate power in the executive branch of government and reassure the subsequent stability of the regime (Whitehead, 1996).

conflicts during the Mexican Revolution. That would turn the city into a “neutral area” where all the political forces could coexist (Loaeza, 1995). In consequence, there was not a clear differentiation between national and local policies in Mexico City, creating some sort of a paradox: all the city’s problems were treated as national, giving it a disproportionate political importance; conversely, there were not significant urban policies devoted to deal with specific urban problems because it was not seen as a city but as another administrative sector (Loaeza, 1995).

2.3.1.1 The end of the hegemony and the rise of the city

In 1988 the country faced a scenario of rising electoral competition and political turmoil. Carlos Salinas de Gortari (candidate from PRI and president from 1988 to 1994) beat the left-coalition candidate, Cuauhtémoc Cárdenas²⁴ by a narrow margin. Cárdenas claimed that a “system shutdown” reported by the Secretary of the Interior²⁵ during the vote count was really a strategy to cover up an ongoing electoral fraud (Lehoucq, 2007). Due to the high number of Cárdenas’ supporters, such accusations caused social discomfort in many sectors of the society, up to the point that the authorities feared for the outbreak of popular revolts (Caño, 1988).

Among with such an adverse situation, the PRI began to lose electoral presence in the Congress and the subnational governments. For the first time ever, the party had to negotiate with opposition parties to make constitutional reforms because they no longer held the absolute majority in the Congress.²⁶ From being a weak, unrepresented force, the opposition turned into a relevant actor with real political power (Lujambio, 1994). One example were the constant negotiations between President Salinas and the National Action Party (PAN) to get the latter’s support in congressional activity in exchange of political privileges.²⁷ Additionally, all the recently elected opposition governors and mayors were not in any more in debt with the president. Their incentive system changed: they were elected through a competed electoral process instead of their presidential ties (Cabrero, 2010). Generally speaking, the president’s political and party faculties weakened.

²⁴ He was a member of PRI until 1988. Cárdenas resigned that year because he wasn’t appointed as presidential candidate. He is son of Lázaro Cárdenas, the founder of PRI.

²⁵ At that time, the Secretary of the Interior was in charge of the organization of the national elections. Nowadays, the National Electoral Institute, a constitutionally autonomous entity, organizes the electoral process.

²⁶ Constitutional reforms require 2/3 of the Congress plus half+1 of the States. While PRI kept more than 50% in both chambers (and most states), it was not enough to change the Constitution.

²⁷ They consisted of PAN giving its support to form coalitions with the PRI and legitimate Salinas’ presidency in exchange for PRI “giving away” state governorships to the PAN (Helmke & Levitsky, 2004; Serrano Migallón, 2006)

The regime got even more undermined when in the mid-term elections of 1997 it lost the congressional majority for the first time in history. In the year 2000 the PRI finally handed in the presidency to the National Action Party candidate, Vicente Fox, formally ending up with the hegemonic party regime. The outcome was a politically fragmented context in which none of the actors held disproportionate power over another. It was the end of doing things by the president's command and the beginning of more negotiated, agreement-based policymaking in many domains.

Besides the regime's end, two major structural institutional and political changes ended up reconfiguring the city's status. A 1996 constitutional reform established the direct, popular election of the mayor for the next year. Whereas the president retained specific attributions in the city,²⁸ the reform was a breakthrough. The new elected mayor would count with the legitimacy of the popular vote and considerable autonomy to conduct the city's policies. From that moment onwards, the city was no longer an administrative sector but a real political actor, gaining independence from the other branches of government.²⁹ Moreover, since the first elections in '97 and until 2018, there was no partisan homogeneity in the Metropolitan Area of Mexico City. All the actors with competences in the territory – the Mayor, the President and the Governor of Estado de México (the city's principal neighbor) – were from different political parties (Table 2.4). For the whole studied period (till 2018), the mayor was from the Democratic Revolution Party (PRD); the National Action Party held two terms in the presidency (2000-2006 and 2006-2012), and the PRI won it back by 2012. Estado de México remains unchanged, headed always by the PRI. All those changes meant that between 2000 and 2012, three different political parties ruled in the three concerned governments.

Table 2.4 Parties and terms per level of government

Government level	Pre 1997	1997-2000	2000-2006	2006-2012	2012-2018
Federal Government	PRI	PRI	PAN	PAN	PRI
Mexico City	PRI	PRD	PRD	PRD	PRD
Estado de México	PRI	PRI	PRI	PRI	PRI

Source: Own elaboration.

²⁸ The president retained the following attributions: 1) appoint the officer in charge of public security; 2) propose to the Senate the substitute of the Chief of Government of D.F. in case of remotion; 3) define the debt caps for the city; 4) promote bills to Congress in everything concerning D.F. and to regulate the laws issued by Congress related to D.F.

²⁹ The city held still a somewhat ambiguous position: it was considerably more independent but in some matters was not formally recognized as one of the other 32 states.

2.3.2 Centralist legacies and political diversity in the Parisian Region

For a long time, France was considered as the model of a highly centralized state. Decentralization processes in the early eighties and subsequent reforms transferred competences and domains to the subnational level, loosen the State's presence without completely fading it away (J. Thoenig, 2005). Either way, subnational governments have progressively gained more competences and room for maneuver to implement their own policies. However, the story for the city of Paris and generally for the Île de France Region is somewhat different.

The capital-city status of Paris (or capital-region status for the whole Île de France Region) as “a matter of State and a national concern” (Gilli, 2014, p. 202) has led to a particular relationship with the central government. Due to the city's importance as the political and economic center of France (Estèbe & Le Galès, 2003), the State has historically held a strong presence, delaying the decentralization processes as compared to the rest of the country. For instance, since the end of the XIV century, the State limited the city's political influence, granting only till 1977 the competence to have its first elected mayor, while all the other communes got the faculty in 1884 (through their municipal council). The same happens in some other domains. When the State decided to transfer attributions to the other territorial levels, it granted the Parisian Region with a particular status to keep control of certain capital's affairs.

Probably the best-known example is the control over the police corps. As a result of the decentralization reforms in the eighties, police powers were transferred to the mayors' authority in all the municipalities but to Paris, where the Police Prefect – a centrally controlled organization – oversees the capital's security. As this thesis shows this faculty has played an important part on air quality policy interactions over the years, with considerable effects on pollution monitoring and crisis management.

2.3.2.1 *Partisan diversity*

Few years after Jacques Chirac got elected as the first Mayor of Paris, he ran for the presidency in 1981, losing to François Mitterrand. Both remained in their respective offices until 1995, when Chirac finally won the presidential elections.³⁰ Ever since the Mitterrand/Chirac concurrent terms, partisan diversity in the Parisian Region has been more the norm than the exception. As Figure 2.1 shows, only two times and for a short period (3 years in both cases) the City, the Region and the National government were from the same party (republicans and

³⁰ Jacques Chirac served as Prime Minister for a short period between 1986 and 1988.

then socialists). However, party convergence between two or more scales does not necessarily traduces into political agreements. As the next section shows, this is the case of the confrontations between the city and the region (both socialists) regarding the creation of the *Métropole du Grand Paris*. Chapters 5 and 7 show that despite the right-wing majority in the metropolitan and regional councils, interactions between both scales are conflictual.

Figure 2.1 Ruling parties per government level in 1995-2021

P	Jacques Chirac / Republicans 1995-2007	Nicolas Sarkozy 2007-2012	Francois Hollande 2012-2017	Emmanuel Macron / LREM 2017-
RC	Michel Giraud	Jean-Paul Huchon / Socialists 1998-2015		Valérie Pécresse / Republicans 2015 -
M	Jean Tiberi / Republicans 1995-2001	Bertrand Delanoë / Socialists 2001-2014		Anne Hidalgo / Socialists 2014-
GP	N/A			Patrick Ollier / Republicans 2016-

Source: Own elaboration. P: president; RC: President of the Regional Council; M: Mayor of Paris; GP: President of the Metropolitan Council. Blue is for Republican party, green for Socialists and yellow for La République en Marche (LREM). Valérie Pécresse got elected as member of the Republican party, however, in 2017 she resigned to found the party *Soyons Libres!*

2.3.2.2 The struggle for the Metropolis

Metropolitan governance in Paris is a latent issue since the early 2000's and a continuous source of tensions between the city and the region. When Bertrand Delanoë first arrived to the *Hôtel de Ville*, he approached to neighboring mayors and created in 2006 the Metropolitan Conference. According to Pierre Mansat, the Deputy Mayor in charge of the Metropolitan Affairs, it was a “dialogue instrument between Paris and its neighbors... to solve the metropolitan problems: the issues of housing, economic development, mobility...” (2010, pp. 89–90). The Conference then turned into a *syndicat mixte ouvert d'études* (an EPCI) under the name “Paris métropole” regrouping 54 communes plus the Regional Council. For Delanoë this was just the beginning to a more consolidated metropolis. Addressing to the Paris council, the mayor indicated :

“Je propose la création d'une confédération métropolitaine inspirée du modèle des pôles métropolitains dotés de réels pouvoirs de décision et de coordination et dont la légitimité démocratique s'exprimerait à travers deux instances : une formation plénière qui réunirait les 200 collectivités et une instance exécutive plus resserrée de 30 à 40 collectivités rassemblant Paris, la Région, les Départements, les grandes intercommunalités. Ainsi, "Paris Métropole" disposerait vraiment d'un instrument d'impulsion, d'orientation et de coordination stratégique.” (Conseil de Paris, Debate, 6 February 2012).

Delanoë wanted to create an organization with decisional powers to conduct strategic affairs at the metropolitan level. To some extent, the mayor had a shared view with President Sarkozy,

who placed the creation of a *Greater Paris* into the State's agenda (Prat, 2012). After a couple of years of working groups and discussions, the presidential project became a reality. The *LOI n° 2010-597 du 3 juin 2010 relative au Grand Paris* conceived the metropolis as an “urban, social and economic project of national interest that joins up the great strategic territories in the Île de France Region” (French Government, 2010). During the discussion period, different groups sketched diverse institutional designs to implement the Grand Paris project. Sarkozy's choice was the creation of an agglomeration with a special status that merged the departments of the *petit couronne* to create a metropolitan authority (Le Lidec, 2018). The City of Paris and the Region, who were already uncomfortable with the state's intervention, reacted unfavorably to the president's proposal. Being politically unfeasible “the option was not abandoned by the president but only put aside while waiting for a better window of opportunity” (Le Lidec, 2018, p. 106). Instead, the national government installed the *Société de Grand Paris*, a State-controlled agency in charge of planning and project management. Till today the *société* manages the Grand Paris Express, a metropolitan transport network.

The reform to create the metropolitan institution came four years later to become effective in 2016. Nevertheless, the Grand Paris project mobilized actors and revealed their preferences regarding the changes to come. Whereas Delanoë was not particularly supportive of Sarkozy's proposal, he did not oppose to the notion of a metropolitan institution with its own powers and attributions. For him, *Paris Métropole* had to go further and gain progressively competences in some subjects to foster coordination at a metropolitan scale,

“Faut-il aujourd'hui aller plus loin ? Clairement, je réponds oui. A ce stade, Paris Métropole n'est pas un aboutissement, mais un socle, dont nous devons partir pour dessiner des perspectives volontaristes... Et en déduire un instrument fédérateur qui coordonne, impulse et renforce ainsi les dynamiques nécessaires autour des vrais enjeux stratégiques... nous proposons de concentrer l'intervention de Paris Métropole sur ce qui est mal, voire pas géré, pour en faire le lieu de règlement légitime de carences que chacun identifie. Concrètement, cela signifie que Paris Métropole puisse, progressivement, hériter de compétences reconnues dans des domaines où le besoin de cohérence est profond” (Delanoë, 2009).

The Parisian mayor intended to create progressively a scale with its own competences. However, the idea of such “monster” had no place in the mind of the Region's president, Jean-Paul Huchon (1998-2015). The regional executive criticized harshly Sarkozy's initial proposal. For him, introducing another scale would increase the gap between the center and its periphery,

aggravating inequalities. These arguments go in-line with the region's institutional mandate of fostering territorial cohesion and economic development. Thus, creating another community of localities (*communauté d'agglomérations*) hinders the region's ability to foster intra-regional equilibrium. During an interview for *Le Monde*, Huchon made his position clear,

“Je réagis défavorablement à la création d'un monstre de 6 millions d'habitants et plusieurs dizaines de milliers de fonctionnaires, coupé des départements de la grande couronne et qui accentuera les inégalités entre les territoires de la région, qui a sa cohérence et qui mérite des politiques communes depuis le centre jusqu'à la périphérie de l'agglomération... Il est clair que la présence en son sein d'une énorme communauté d'agglomérations déséquilibrerait les choix de développement économique et, par exemple, de transport ou de logement, et ne me permettrait pas d'arbitrer entre les intérêts légitimes du Grand Paris et de la grande couronne” (Jérôme, 2009).

2.3.2.3 “*La métropole, c'est moi*”

More than a hindrance to fulfill its mandate of fostering territorial cohesion, Huchon's attitude towards a metropolitan government depicted in the above quote, is anchored in a perception of the region as the rightful metropolis. In his words, “[À] mon sens le cœur du débat c'est l'unité et la cohésion de l'agglomération francilienne. Profitons-en : la métropole, c'est la région !” (Nodier-Köller, 2007, p. 116). Such approach is not unique to Huchon's personal considerations or political orientations. It is the mere nature of the region and its general perspective what makes the regional authorities to conceive themselves as the *real metropolis*. Since its early days, regional representatives considered Île de France as a metropolis. Michel Giraud, a right-wing politician, and the first President of the Regional Council founded “Metropolis”, a worldwide association of big metropolis, clearly identifying Île de France as one of them:

“Metropolis a favorisé une coopération plus étroite entre l'Ile-de-France et plusieurs autres métropoles du monde, en particulier Montréal, Le Caire, Buenos-Aires, Mexico, Abidjan, Pékin et Shanghai” (Michel Giraud parle sur l'entraide, 1987)

This notion is the result of a path dependent process, self-reinforced by its confrontational relationship with the city of Paris and piecemeal institutional changes. In the first place, the Region has to deal continuously with a powerful and resourceful entity that could threaten its area of influence (Estèbe & Le Galès, 2003), particularly in the municipalities of the petit couronne. Therefore, the introduction of another scale at the metropolitan level posing a threat

to the region for conducting its interests. Additionally, institutional changes have reinforced the idea of Île de France as the big metropolis, in charge of bring out equilibrium among the Parisian center and its periphery. The decentralization reforms transferred the region the formal task to foster territorial cohesion among all the communes inside its territory and since then, it identifies itself as the sole scale in charge of such competence. No matter the political party, the perception of the region as the rightful metropolis will be a point of tensions with the city and the young *Métropole du Grand Paris*.

2.4 Conclusion

While both cities face different degrees of complexity in terms the number of interactions, they share a similar history as cases of exception within their own contexts. These features showed the main governance dynamics that serve as the departure point to explain the coordination processes in the two policies. In the first place, the longstanding presence of the central government led to a centralist legacy or a global *référentiel* of central control. For instance, in the case of Mexico City the federal government seeks to retain control in some aspects of policymaking. In the case of Paris, the State keeps a steering role, and holds a strong presence in the city through the *Préfecture de Police*.

These processes led to other cognitive, institutional, and political effects. Here are some examples. (1) The region's self-conception as the rightful metropolis is a source of conflict with the city and the metropolitan institution in concurrent arenas; (2) the number of government levels with different attributions in the French system creates institutionalized scale differences that could hardly be reconciled; (3) in the case of Mexico, the political turmoil of 1988 led to a more active role of the civil society and made the federal government more attentive to social demands, opening windows of opportunity to include issues in the local agenda. These elements and others displayed here give a general overview of the governance arrangements in both cities and serve as a reference point to guide the reader throughout the analysis of the policy coordination processes.

Introduction to Part II – Air quality policy coordination in Mexico City and Paris

Introductory sections of parts II and III emphasize the two comparison criteria of the case selection: structure and time. The former refers to Mexico City and Paris' condition of capital cities (strong state control with differentiated decentralization paths) that differ in the number of actors they interact with. The capital cities status led to a “late” problem adoption in part because the national governments held strong central policy control. As the following chapters show, the legacies of central control remain as a *référéntiel* for action: in Paris the State refuses to give away strategic competences regarding driving restrictions to fulfill its economic and political interests, while in Mexico City the federal government tries to regain policy control with political purposes.

Within the air quality policy domain, the number of involved actors increased the complexity of coordination processes. Each actor the city interacts with represents an “interaction front”, with its own institutional, cognitive, and political logics. Therefore, the more the actors mean more open fronts, increasing the possibilities for conflict and non-action. In addition to the urban governance dimension, Mexico City just deals with two “external” actors, the Federal Government and Estado de México. The city of Paris, on the other hand, experienced various fronts: with the State, the Region, *Grand Paris*, and metropolitan departments and communes. Which are the implications for coordination? As both chapters show, in a context with fewer actors (Mexico City) it was possible to identify a more unified logic of the interactions, in this case around reputational harms.

Conversely, more in scene actors increase the probability to have differentiated interactions, leading to coordinate with some and get into conflict with others in a single topic. The Parisian case shows that the increased number of actors not only did foster the insertion of the problem in the local agenda, but also opened diverse fronts between the city and other government scales. It was therefore complicated to identify a unified interactional logic; instead situational variations were regulated by political and institutional considerations.

Regarding the time criterion, air pollution is an old problem whose cities' takeover took place in a context of institutional and political transformations. Mexico City and Paris went from centrally controlled entities to more autonomous actors, gaining attributions and redefining the power relations. Chapters 4 and 5 show that during the policy's local adoption, the abovementioned changes reinforced some features of policy's path, locking in interaction

patterns that resisted further changes. A second time-related feature refers to the type of crisis. Pollution peaks denote a sense of urgency due to its immediate and visible effects, leading to instant responses. Chapter three shows that air quality got into the local agenda after crisis episodes increased the issue saliency, raising concerns of the civil society and in the case of Paris, the opposition parties. Despite being locally absent for many years, once the cities adopted the issue, actions began right away.

All three chapters draw mainly on transport related actions for two reasons. First, for both cases road traffic is the main source of the principal air pollutants. In Mexico City it is the main cause of nitrous oxides – ozone precursor – (86%), PM₁₀ (53%), and PM_{2.5} (56%) (SEDEMA, 2021a). In the case of Paris, road transport contributes with 65% of nitrous oxides, 36% of PM₁₀ and 35% of PM_{2.5} (Ville de Paris, 2021; GUAPO, 2020). In second place, measures to control pollution peaks are mainly based on driving restrictions, comprising a main point of interaction between all the actors. This is particularly important for the Mexico City's case because coordination processes are mainly based on transport-related policy instruments for crisis control. In Paris, driving restrictions during crisis management are revelatory of the main aspects of air quality policy interactions: the referential of central control, the city-region relationship (its contingent nature due to institutional mandates and partisan politics), and the institutionalized scale differences between the city of Paris and its neighboring *communes* due to their political preferences.

Chapter 3. From a problem of the city to the city's problem. Coupling air quality policy in national and local agendas.

3.1 Introduction

Consider two moments of crisis: (1) In the late 1980's air pollution levels in Mexico City were so high that birds were falling dead from the sky (Rojas, 1987). Monitoring stations recorded 47 registries with more than four times the health-threatening levels in 1986 (SEDEMA, 2012) and recurring pollution peaks reached their worst in 1992 during 28 days (see Graph 4.2 in the next chapter for reference). During that period, Mexico City got the infamous title of the most polluted city in the world. (2) In 1995 a pollution peak was one of the “inauguration events” for Jean Tibéri in the *Hôtel de Ville*. The event mobilized NGOS such as *SOS-environnement* and the growing and harsh blaming local opposition parties that pointed the many years of inaction and demanded a deeper involvement of the local administration (Zittoun, 2008, 2013). What the two cases have in common is that the national and local governments were aware of the problem long before it became crises. Despite its local effects, it remained as a national issue and only after many years, when the situation became unbearable, it became a local problem. Why? This chapter answers that question. Spoiler alert, it's a story about how the air quality framing changed from a national to a local issue; and how coordination led to such changes.

Air pollution has a longstanding history as a public problem. Regulations dating from the thirteenth century show the concern of the early societies over the health threatening effects of pollution (Fowler et al., 2020). The initial notions of the problem in France date from 1932 when the term was first introduced through the “Law Morizet” to control industrial smokes. The first legislation directed exclusively to address the issue came thirty years later, with the *Loi n°61-842 du 2 août 1961 relative à la lutte contre les pollutions atmosphériques et les odeurs*. By the early 70's Mexico adopted its first Federal Law to Prevent and Control Environmental Pollution. These legislative efforts are signs of a governmental concern in the issue at the national level. As the chapter shows, despite the deteriorating air quality and its worrisome health effects in both capitals, the problem didn't make it into the local agenda until the late eighties-early nineties.

According to Scholten (2013) the type of governance configuration leads to particular problem framings, thus defining the extent to which problems are addressed either centrally, locally or in a multi-level fashion. In his study of Dutch migrant integration policies, the author

distinguishes four types of “problem agendas” – central, multi-level, local or de-coupled –, each one with different perspectives on the level of government in charge of problem solving. Centralist and localist types are opposites, considering problems either as central or local and requiring solutions at a determined level. The problem agenda for multi-level governance considers a differentiated perspective with national and local aspects. In agenda de-coupling, problems are defined in conflicting ways between all the government levels. Scholten shows that framings are not mutually exclusive, therefore different definitions can coexist and create discrepancies in the problem’s adoption. Moreover, they are neither stable as they can evolve over time.

This chapter argues that the problem’s original framing as a centralized issue kept it from reaching the local agenda, leaving interactions at the national level. Institutional and political changes involved more actors, which through coordinative discourses redefined the issue, making air quality the cities’ problem. In Scholten’s terms, both cases experienced a shift from a centralist to a multi-level problem agenda. To develop the argument the chapter is divided in two parts. The first one shows the “central problem agenda” of air quality. Due to their strategic importance, capital cities have experienced strong central control following differentiated decentralization paths in comparison to other local governments. Their formal, direct involvement through specific competences on many domains arrived late and air quality was no exception. Strong central control was in fact one of the factors explaining the late involvement of the cities in the domain. In Mexico City, highly centralized policymaking in hands of the president, and the ambiguous position of the city as an administrative sector with some autonomous competences explain its absence in the problem. Regarding the Parisian case, three factors explain the local government’s non-action: the strong State’s presence controlling most of the capital’s policies, the lack of politization of the issue (no local interest), and the local and national approach towards air pollution as a technical-administrative matter rather than an urban issue.

In the second part, the comparison shows that while the processes leading to the issue reframing were context-specific, direct attributions on the issue had little to do with the agenda coupling. Throughout the problem re-definition process, the competences on air quality remained mostly unchanged. Rather, what brought air pollution to the local arena was the combination of structural political and institutional changes, local politics and pollution crises as focusing events (Birkland, 1998). Facing unbearable pollution levels, the civil society gave saliency to the issue exerting pressure on the Mexican government to improve air quality. Under a context

of political turmoil following fraud allegations of the 1988 electoral process, the government became more attentive to social demands. In addition, political aspirations of the appointed Mayor³¹ motivated him to take advantage of the issue's politization and take action to take the city out of the crisis. In Paris, national and local agendas coupled when actors from different levels jointly redefined the problem. For instance, structural-level transformations giving autonomy to territorial actors paved the way for the region's involvement through technical studies exploring the pollution associated health risks. This was in-line with similar approaches at the national and European level. Additionally, recurring pollution peaks mobilized an increasing socialist and green partisan opposition demanding the city to act. In consequence, the problem went from one phrased in technical administrative terms to one linking vehicle pollution to health hazards. Such framing turned the issue into an urban matter, making it the city's problem.

3.2 A problem in the cities (but not the cities' problem)

Despite being a problem directly affecting the cities and the fact that it reached the national agenda in Mexico and France, air quality was longtime neglected as issue of local concern. The absence of the problem in the local agenda was traduced in the inaction of the local administration, leaving the policy in hands of the national government. The purpose of the following section is to explain for both cases the reasons for such scenario. It first develops Mexico City's case, where the highly centralized approach to policy due to the strong control of the President in all the country's affairs, and the ambiguous position of the city as an administrative sector with some autonomous competences, explain the absence of the city in the problem. Then, for the case of Paris, the local government's absence in the problem is the result of strong State presence combined with the lack of politization of the issue, and a problem framing that approached air pollution under a technical-administrative logic without an urban component.

3.2.1 Mexico City, an administrative sector in a highly centralized federal system.

The Federal Government recognized air quality as a public problem since the late 60's-early 70s. Even if the problem was geographically located in Mexico City and redefined as an urban issue, its administration had very limited involvement before 1988. For almost two decades the issue remained highly concentrated at the national level, with little involvement of the city.

³¹ Before the 1996 local elections, the Mayor of Mexico City was appointed by the President. He was part of his cabinet and held a Secretary status.

Why if the problem that was mostly at the city level it was managed by the central government? Similar to Matthew Crenson's classical study on Air Pollution (1971), this is the story of non-decision at the local level. However, the causes are different. Whereas Crenson's study, attributes non-decision to local politics and the power of the industry to keep the issue out of the agenda, Mexico City's absence on air quality policy has two main reasons: the strong centralist practices of the federal government under a hegemonic party regime and the ambiguous position the city holding a dual status, of an administrative sector and sharing some attributions granted to subnational governments.

As this first section shows, due to these two factors the city's role in air quality policy was minimal. All the legal and regulatory instruments issued by the executive granted policy control to the federal ministry in turn (either Health or Urban Development and Ecology), yielding negligible responsibility in the city. Not even when the federal government recognized air pollution links to urban activity, there were major planning instruments, strategies or any other type of actions that created any type of joint work between the city and the federal government. The lack of coordination was therefore the result of the problem framed as a central issue under an authoritarian regime.

3.2.1.1 Centrally controlled policies in a federal system

Air, water, and soil pollution dominated the environmental agenda in the early seventies. As Lezama (2010) indicates, the fact that the only major environmental regulation was the 1971 "Federal Law to Prevent and Control Environmental Pollution" (Ley Federal para Prevenir y Controlar la Contaminación Ambiental – LFPPCA), exposed the government's primary concern in fighting pollution. Moreover, the text shows that the problem was framed only on the consequences that atmospheric pollution has on health under a highly centralized logic. Proof of that was that the organization in charge of environmental policy was the Secretary for Health and Assistance (SSA)³²: "The application of this law and its bylaws is responsibility of the Federal Government through the Secretary of Health and Assistance" (Mexican Government, 1971, art. 5)). At the sub national level, the law indicates that Mexico City and the states had a marginal role only as "auxiliary authorities" to the Secretary of Health (Mexican Government, 1971).³³ Other actors such as civil society or industry were mere

³² The law comprised also the involvement of other sectors to control water, soil and pollution derived by industrial activities, so the Secretary of Hydraulic Resources (SRH), the Secretary of Agriculture and Livestock (SAGAR) and the Secretary of Industry and Commerce (SIC) were also involved.

³³ They had only one attribution that was shared with the Secretary of Communications and Transports (SCT): the emission control of mobile sources (vehicles).

recipients of top-down policy actions. According to the law, it was the government's role to shape "citizen's conscience" to take care of the proper functioning of their vehicles.³⁴

The industry had a more reactive position, opposing to obligations coming from the 1971 law, which required them to improve their production processes by introducing more modern and less-pollutant equipment. With the argument that it may have a negative impact on the economic development of the country – a high profile aspect on the presidential discourse –, they managed to override regulations and instead agreed with the government to transfer the responsibility to car use and the general population. In a chronicle of the "First Meeting of Environmental Pollution Problems" between the federal government and industry representatives, Soto Coloballes (2017) quotes the position of the, the Undersecretary for Environmental Improvement, transferring the responsibility of atmospheric pollution to car-using citizens and, more importantly, to those located in Mexico City,

"In short, if we want to clean, not purify, the air we breathe in this beautiful Mexico City, it is necessary that we begin to take care of the conditions of our own automobiles; that we reorient our mobility habits, that we begin to use public transportation, in short, that we learn how to drive and use this marvel of the twentieth century that is the automobile, which by being misused and abused it is becoming the major threat to our health and our landscape" (Soto Coloballes, 2017, p. 206).

Oh, wise words from the undersecretary. If they were not just to shift the blame of pollution sources, maybe governmental actions may have started to have some effects to improve public transport and disincentivize the car-use. And more important, to involve Mexico City's authorities. This clearly didn't happen. His discourse, showed, however, the first vestiges of the relationship between urban activity and atmospheric pollution.

Institutional changes and governmental rearrangements contributed to position the problem as an urban matter without redefining the city's role. The creation of the Undersecretary of Ecology in the nascent Secretary for Urban Development and Ecology (SEDUE) in 1983 extended the problem definition, from entirely focused on its health effects to consider its causes related to population growth and the complex set of urban practices. The National Institute of Ecology's official chronicles show that with that change, the government argued on the "need to integrate in one organization the faculties related to ecology, environment,

³⁴ The law also considered a term denominated "popular action" (*acción popular*) (LFPCCA, 1971), which reduced citizen participation to a whistleblower: to make claims or denounce polluting sources.

urban settlements, and land-use planning as a measure to support actions on socioeconomic development” (INECC, 2009, p. 56). Discursively, the problem turned into an urban issue, although the city’s role was barely acknowledged.

In fact, it was quite the opposite. The creation of Secretary for Urban Development and Ecology meant to centralize environmental functions of all the sectors and levels of government (INECC, 2009). Such concentration was apparently opposed to the decentralization wave that was hitting the country in the early 80s (see chapter 2). The continuity of the centralist logic in the air quality issue was evident in the plans and actions that followed the reforms. For example, in the Ecology Program 1984-1988 or in the Presidential Decree of February 14th of 1986, environmental policy is seen as an exclusive attribution of the federal government (Mexican Government, 1986). The latter mainly delineated a series of specific actions that had to be carried out to fight environmental pollution under presidential instruction. It also criticized the lack of integral planning among the sectors – not government levels – involved in environmental policy, claiming that all of them were acting isolated from one another (INECC, 2009). Despite the problem framing as an urban matter, the country’s centralist tradition kept air quality policy in the executive’s control.

3.2.1.2 Institutional ambiguities: the city as a sector

Among with the centralist orientation on policymaking, the city had an ambiguous position in-between an administrative sector and a subnational government (see chapter 2). Mexico City didn’t have a preeminent role on environmental policy because most actions were centralized on the ministries in turn (Health or Environment and Urban Development). As the previous section shows, the federal government kept conducting policymaking through the direct control of laws, plans and programs, leaving the city aside. Even when things seem to be changing through a more (at least formally) decentralized policymaking, the city was left out to play an ambiguous role, reflected in the 1988’s General Law of Ecologic Equilibrium and Environmental Protection (LGEEPA).³⁵ Let’s see. On the one hand, the law established that all the matters of the law should be tackled jointly between the three levels of government within their respective jurisdictions (Mexican Government, 1988). It respected the autonomy of the subnational governments so actions wouldn’t be (at least formally) induced by the executive. Acknowledging that, the 1988 law gave the Ministry of Urban Development and Ecology the attribution to celebrate coordination agreements with other states. The new law formally

³⁵ Substituted 1982’s Federal Law of Environmental Protection.

recognized the recently gained constitutional autonomy of subnational governments and gave them a more active role on policy.

However, it was not fully the case for Mexico City as an administrative entity of the Federal Government. On the one hand, the law gave the city the same attributions granted to the states and municipalities (which were formally autonomous), and on the other hand it was subordinated to the Ministry. According to the law, air quality management was a shared jurisdiction between both. Actually, Mexico City³⁶ was subordinated to the Ministry in some matters. For example, the law granted the latter the attribution to control atmospheric pollution in the city and to participate jointly with the local administration in the regulation of mobile sources of pollution, a local competence (Mexican Government, 1988). Moreover, the Ministry oversaw the technical norms of maximum pollutant levels of mobile sources and was in charge of the installation and operation of monitoring systems of atmospheric pollution (Mexican Government, 1988). In sum, the federal government controlled all the policy features in the city, despite the law indicated that the city had also the competences granted to other local governments.

The point made here is that the city's position as an administrative sector in control of the executive plus the law's ambiguities outweighed its competences on the issue. The "urban" aspect of air pollution was seen as a matter of national competence. Under such circumstances, air quality it was more a national urban policy, where the central government is in charge of coordinating actors to achieve a national goal (OECD, 2017). The minimum role of the city meant that the problem agenda was still under central control, without any traces of a change coming from the federal government.

3.2.2 Same problem, decoupled agendas. Strong State action in an uninterested Paris

Similar to the Mexico City's case, the air quality problem got into France's national agenda long before it became matter of local intervention in Paris. The first national law dates from the early 60s while the city's involvement didn't come until the mid-90s. A shared view of the problem as a central matter between the national and local levels and an unconcerned city hall explains such a delay. In a first subsection, this part shows that for many years air pollution was defined in technical-administrative terms, caused by industry emissions, a competence exclusively reserved to the State. Such phrasing encouraged the already powerful and

³⁶ The Departamento del Distrito Federal (DDF) was the administrative entity in charge of D.F. The person in charge of DDF was officially named Chief of the Department of D.F. and commonly called "Regent". His position was analogous to a Secretary of State.

controlling State to take over policy through its local branches, refraining the city of any responsibility. Additionally, the second subsection argues that the longstanding mayor, Jacques Chirac (1977-1995), had no concern in air quality, sharing the State's framing that air quality should be a central matter. These factors plus a weakened and atomized political opposition that couldn't exert much pressure, led to a centralist problem agenda, without any kind of action from the city, hence no coordination.

3.2.2.1 *The prevalence of the State in the Parisian region. A non-urban problem*

Air quality-related competences remained highly centralized for more than 30 years. The first legal instrument, the 1961 Law to fight atmospheric pollution (*Loi n°61-842 du 2 août 1961 relative à la lutte contre les pollutions atmosphériques et les odeurs*) didn't specify any formal role at the local scale and would remain that way up to 1996. Under a rather spatial view of the issue, the only territorial consideration of the Law was the creation of the Special Protection Zones that sought to move factories away from urban agglomerations (Roussel, Charles, & Frère, 2008). Until the publication of the *Loi sur l'air et l'utilisation rationnelle de l'énergie* (or LAURE) in 1996, that introduced local planning, competences on air quality policy were almost exclusively controlled by State.

In Paris, local policy was initially carried out jointly by the Prefect of Paris and the Prefect of Police. Actions comprised pollution monitoring, the execution of centrally imposed industry regulations and certain driving restrictions enforced by the Police Prefect (Doublet & Grimaud, 1967). Pollution monitoring was developed through the *Laboratoire d'Hygiène de la Ville de Paris* in charge of the Paris Prefect and the *Laboratoire Central* of the Police Prefecture. Later on, the state presence was taken over by the Regional Direction for Industry, Research and Environment (DRIRE).³⁷ Its tasks remained basically the same: focusing on pollution monitoring and tracing the centrally developed measures (DII, 1980).

³⁷ They are a deconcentrated service of the Ministry in charge of the environment and act under the authority of the Prefect of Île de France/Paris. Even if they have gone through different reorganizations through time and changed from Ministry of attachment, they represent a particular body composed by engineers from the state service (Ingenieurs des Ponts et Chaussées). They have been through different denominations and changes in their competences. They were created in 1969 under the name of Service Interdépartementaux de l'Industrie et des Mines. By 1979 they became the Directions Interdépartementales de l'Industrie. In 1983 they changed to Directions Régionales de l'Industrie et de la Recherche (DRIR). By 1992 Directions régionales de l'Industrie, de la Recherche et de l'Environnement (DRIRE). Finally, they turned into the Direction régionale de l'Environnement, de l'Aménagement et du Logement (DREAL) and for Île de France region it became the Direction régionale et interdépartementale de l'Environnement et de l'Énergie before adopting its current name, Direction régionale et interdépartementale de l'environnement, de l'aménagement et des transports (DRIEE). Before being attached to the Ministry of Environment they were to the Ministry of Industry and then to the Ministry of Health.

In addition to the institutional conditions showing the centralized nature of the attributions in air quality policy, the problem framing reassured the presence of the State at the local level. Air quality was defined under a technical-administrative approach with a focus on industry emissions that could be addressed by the use of more proper technology (Lascoumes, 2007b). It was a matter of regulation, inspection, and enforcement to industry emissions that has been historically a centrally managed competence through the different services of the State (OECD, 2010). Moreover, as numerous studies on air pollution in France indicate, the problem definition neglected the role of transport and the pollution effects on health, taking away the urban component of the issue (Boutaric & Lascoumes, 2008; Lascoumes, 2007b; Vlassopoulou, 1999).

As Chloé Vlassopoulou (1999) demonstrates, this problem view in France was product of fragmentations and power relations between the ministries at the national level, creating networks and alliances within each domain. Highly fragmented competences set by the '61 law left each ministry to take control over its own sector of intervention. Policy was supposed to be formally coordinated first by the Ministry of Health and then by the Ministry of the Environment upon its creation in 1971. However, the then new ministry born under a challenging setting. In addition to a fragile institutional startup (Lascoumes, 2008; Laville, 2010), it was supposed to manage an environmental domain already inhabited by several ongoing policies scattered around various, more powerful ministries (Charvolin, 2003; Lascoumes, 1994). For the case of air quality, the Ministry of Transport was the responsible of controlling automobile emissions, and the Ministry of Industry of industrial pollution (Larrue & Vlassopoulou, 1999). Both conformed networks and alliances within their respective sectors and imposed themselves over the weak Ministry of Environment, blocking any type of intervention of the latter in their domains (Vlassopoulou, 1999). In fact, the relationship between the Ministry of Industry and of Transport with the automobile industry helped to maintain the status quo for longtime, blocking any type of major policy change to deal with vehicle emissions (Vlassopoulou, 1999). In Paris such dynamic was mirrored under the pollution monitoring system, which also became the sole arena of interaction between the city and the State.

In the late 70's the domain underwent a reorganization, marking the entry point of the municipality on the issue. However, this reorganization led more to a coexistence – or redundancy – of diverse organisms than to any type of interactions. After the first city elections in 1977, the *Laboratoire d'Hygiène* went into hands of the city's administration and coexisted

with two other actors: the aforementioned Central Laboratory of the Police Prefecture and AIRPARIF, a newly created association of air quality monitoring for the Parisian Region. The emergence of the latter was part of a national strategy of the Ministry of the Environment to give a technical, independent assessment on local pollution measuring (Téton, Robin, & Genève, 2010). For some municipalities the associations opened a window of opportunity to participate on air quality policy. Upon their creation in 1972, monitoring associations spread out throughout many regions. They served as a hub of exchange between different actors and scales of government through their administration council, a governing body comprised by public authorities (national and local), the private sector and non-public actors, such as NGOs or other personalities. Local politicians chaired the administrative council, giving them some voice in the issue in face of the lack of formal competences on the matter. Not in Paris.

In its early days, AIRPARIF's administration council was constituted by the State through the Regional Direction for Industry, Research and Environment (DRIRE and then DRIEE), the industry represented by AIRASIF and only three departments: Hauts-de-Seine, Val-de-Marne and Seine-Saint-Denis. The city of Paris wasn't part of it. In fact, pollution monitoring in the Parisian region was fraught with tensions, up to the point that the Paris municipality refused to be part of the administration council of AIRPARIF and to contribute financially to the organization (Boutaric, 1997). It didn't join until 1989 by the pressure of the State (Roussel & Charles, 2008). The city's reluctance to join AIRPARIF could have been a result of the recently gained political independence after the 1977 elections and with its own pollution monitoring system (controlled by the *Laboratoire d'Hygiène de la Ville de Paris*) it wouldn't have an incentive to join AIRPARIF. Ironically the *Laboratoire* was the only technical link with the latter (Boutaric, 1997; Roussel et al., 2008).

Until their coupling in the mid-90's, three monitoring networks (*Laboratoire Central*, *Laboratoire d'Hygiene* and AIRPARIF) operated simultaneously and measured different pollutants creating fragmentations and low interaction levels (Boutaric, 1997). In the absence of Paris, the DRIRE took the lead in AIRPARIF. The Direction installed and controlled the monitoring pollution system of AIRPARIF through a large network of stations located next to the ones owned by the Central Laboratory and the *Laboratoire d'Hygiene* (Charles, 2003; Roussel & Charles, 2008). That way, the State, through the DRIRE oversaw the only action that could be headed by the municipality.

All this resulted in a marginal role of the city on air pollution. With a problem definition focused on industry emissions, policy remained centrally controlled and reproducing the

dynamics at the national level. Without the city in the administration council of AIRPARIF, the interaction within was mostly between the DIRE and the industry association, AIRASIF. Franck Boutaric (1997, p. 43) captures the latter's position through the deliberations of the administration council of AIRPARIF where AIRASIF didn't miss the opportunity to recall that their share of SO₂ emissions was minimal and only accounted for 25% out of the total inside the *petit couronne*. In addition to monitoring, policy focused on reporting the pollution levels and tracing the impact of the centrally developed measures, such as changes on the fuel formula, and the special protection zones (DII, 1980), all this conducted by the DIRE.

3.2.2.2 *Similar framings, decoupled agendas...and a lack of political interest*

All along Jaques Chirac's 18 years in the *Hôtel de Ville*³⁸ air quality was far from being a local priority. Environment was in general a minor concern for the city. For instance, besides the inherited *Laboratoire d'Hygiène*, Paris didn't have any agency dedicated to it until 1990, when the Direction for the Protection of the Environment was created (Boutaric, 1997). Therefore, in addition to the abovementioned State's interventionism, the absence of air quality from the local agenda was also the result of two other factors: the shared problem framing with the State and the lack of politization of the issue.

The common view of the problem left the policy in the hands of the central government. The Mayor's Communication on Environmental Policy to the Paris Council shows his approach to the problem as something exclusively falling into the State's attributions. By making reference to past pollution episodes, Chirac considered that public health was not compromised because industrial emissions (a central competence) were under control and no longer represent a threat. Conversely, vehicle pollution had a low sanitary impact that could be solved through more proper technology. This wording took away the issue's urban component, making it a matter of State's intervention,

“Certes, la santé publique n'est pas menacée, et des pointes de pollution comme celles du mois de septembre 1991, survenue à la suite de la conjonction d'une situation météorologique défavorable et d'une congestion du trafic automobile, restent exceptionnelles” (Ville de Paris, 1992, p. 3)

Chirac's notion of air pollution as an exceptional problem also refrained the city to take major actions to fight it. Therefore, it is not surprising that any kind of measure to improve air quality remained marginal. The same communication establishes that they pay special attention to the

³⁸ He was the first mayor of Paris, elected in 1977 till 1995, when he became President.

technology of the heating network of the Parisian Company of Urban Heating (*Compagnie Parisien de Chauffage Urbain*) and encourages the State to implement transport measures in the city, such as an electric vehicle program. Additionally, Mayor Chirac's approach to transportation was as a problem of planning that could be solved through parking management and more car space (Halpern & Le Galès, 2019). The technical administrative approach on the issue is reassured, and its urban component, related to transport and citizens' health is neglected. The city's administration problem framing kept the issue at the State level and seemed to be comfortable with it. Paradoxically, the shared view of the problem decoupled the national and local agendas.

The other factor hindering the problem's insertion in the local agenda was its lack of politization or its opening as something of political interest (Palonen, 2003). In terms of local political pressure, conditions during Chirac's ruling were favorable to his party, holding a vast majority in the Paris council, which overshadowed other political voices. In addition, air quality, was also a non-issue for the other majoritarian parties. The opposition that could insist for a more relevant role of the city didn't appear until 1989 with a weak presence in the Council—only one seat for the green party VS 92 seats (55.8%) for the *Rassemblement pour la République* (Chirac's party). Other bigger parties, that could put some pressure, such as the socialists or the other center-right party, *l'Union pour Paris* had a different view and a weak involvement. The former, considered transports and circulation actions as a mayor failure but gave no substantial propositions; the latter proposed the “creation of new road infrastructure and the development of traffic regulation”, a view clearly towards the car-use (Boutaric, 1997, p. 42).

The conditions through which pollution peaks were managed give an account of the State's action and the negligible role of the city, consequence of the problem framing and the latter's low interest in the issue. Here is one example based on a piece written by a former deputy general director of the DRIRE, newspaper coverage and a report by the Police Prefecture. In 1989 the effects of a meteorological phenomenon created pollution concentrations on several European cities and Paris was not the exception. Due to the spread effects of the event, the then discrete AIRPARIF was now the center of attention to national and international media craving for information (Fargette, 2000). The situation was entirely managed by the State in two fronts: the Ministry of the Environment and the Prefect of Police. The former installed a crisis task force to monitor and assess the effects of the episode (Fargette, 2000). In parallel, the Police Prefect gathered data through its Central Laboratory monitoring network. Action at the state

level was fragmented and decoupled. A closer look to the 1990's Prefecture's atmospheric pollution report reveals that it makes no reference to the other monitoring networks (AIRPARIF or *Laboratoire d'Hygiène*) or to the competences of other actors in crisis management (Préfecture de Police, 1990).

On the city's side, the mayor nuanced the effects of pollution peaks on health as the above quote shows. Such feature plus a weak opposition withdrew any technical or political interest in the issue. Nowadays pollution peaks tend to be highly visible, politically important events due to its considerable media attention and its impact on public perception. As the next two chapters show, public actors mobilize to avoid the negative consequences of such events that could result in blame allocation and reputation harms (Hood, 2002; Weaver, 1986). It was not the case in Chirac's Paris, at least not for the local administration. Despite the wide mass media coverage, the municipality barely played any role and left the responsibility to the State. The city was completely absent.

Besides the lack of competences and the problem framing, the issue was just not politically important to the municipality. Later, this episode will unchain important actions to redefine the problem but didn't foster for any immediate reaction of the city, not to say the slightest policy change. Keeping the issue at the State level prevented any type of coordination between the city and the State. However, other actors were about to appear due to institutional changes. Additionally, the Jacques Chirac era in Paris would come to an end in 1995 when he took office as President. His successor, Jean Tiberi (1995-2001) placed air quality policy in the local agenda. More than a political platform, the agenda-setting process was the result of local political re-accommodations accompanied by contextual transformations.

3.3 The cities' problem

After a long period of non-action, the problem finally reached the cities' agenda in the late 80s-early 90s. In both cases, pollution crises accelerated the involvement of the local administration. More than a wake-up call for them, the events were an opportunity window for the civil society and opposition parties to pressure the local governments to act. In the case of Mexico City, the adoption resulted from the involvement of the civil society that gave saliency to the issue plus the political implications it had for the regime and the mayor in a context of political turmoil. Conditions in Paris were different. In the aftermath of recurrent pollution peaks, the growing political opposition in the Paris Council pressed for a more active role of the city to tackle a problem being recently redefined as an urban matter. What this section

makes evident is that direct competences have little to do with the adoption of the problem in the local agenda. Coordinative discourses in both cases led to the issue re-framing, making it the cities' problem.

3.3.1 An active civil society in a context of political turmoil in Mexico City

Institutional changes in Mexico made evident that there was no immediate clear intention from the center to give the city a more prominent role to the city on air quality policy. Therefore, its future involvement wouldn't come from a formal institutional change. Instead, two factors contributed to reframe the issue as the city's problem: (1) the involvement of the civil society during the air pollution crisis by giving saliency or politicizing the issue, and (2) the window of opportunity opened by the 1988 elections and seized by the D.F. political leaders and bureaucracy. The way through which air pollution became a problem in Mexico City is a story of how interactions between the civil society, the federal government and the city's administration reframed the issue as a local problem.

3.3.1.1 *Making the air salient. The role of the civil society*

The 1987 dead bird's incident mentioned in chapter's introduction increased the salience of an air pollution problem that was already a matter of public concern and mobilization since the mid- 80's. By that time, a growing number of civil society organizations criticized the government's role in handling environmental issues (Gilbreath, 2003). For example, in 1985, a group of one hundred artists and intellectuals (known as "the group of the 100") published a manuscript calling for governmental action to reduce the high air pollution levels, claiming its negative consequences for health and the environment (Aridjis 1985). They had media connections and ties to the political elites, which helped them give visibility to the issue (Aridjis & Ferber, 2019; Quadri de la Torre, 1991).³⁹

Forthcoming events fueled the mobilization of the civil society. Later that year, the ineffective governmental response to the earthquake that hit Mexico City resulted in a more active role of the civil society (Inam, 2002), boosting the NGOs' presence. This created a sort of bonding among Mexico City's inhabitants and generated a spirit of solidarity between the ecologist NGOs, leading to the First National Encounter of Ecologists that took place a couple of months after the earthquake (Lezama, 2010; Quadri de la Torre, 1991). Social pressure from the

³⁹ The founder of this group was Homero Aridjis, an intellectual and poet that was also ambassador of Mexico to Switzerland (1976) and The Netherlands (1977-1979). Other members were the Nobel prizes Octavio Paz and Gabriel García Márquez as well as many other high-profile intellectuals and artists.

ecologist movement was effective in attracting President De la Madrid's (1982-1988) attention (Mumme, Bath, & Assetto, 1988), leading the government through the Secretary of Urban Development and Ecology to sponsor public forums where these groups could express their concerns and give proposals on environmental issues (Gilbreath, 2003). The civil society presence was limited but contributed to the issue saliency by getting attention from the political class. However, it makes just one part of the explanation of the local agenda-setting process. The rest is about politics.

3.3.1.2 Political turmoil and activism of the local bureaucracy

Apart from the civil society's contribution to make air pollution salient, two other related factors contributed to the city's adoption of the problem: political changes after the 1988 elections and the successive activism of its political leaders and bureaucracy. First, the political turmoil after 1988 elections (see chapter 2) involved a more active participation of the civil society that forced the authorities to take immediate action (Loaeza, 1995). Things began to change, and if the president sought to keep a considerable amount of power, he had to be more aware of social claims, especially in highly politicized issues; and atmospheric pollution was one of them. The after-election crisis triggered social pressure that transformed air pollution into a topic of political interest and political capital for those who wanted to take advantage of it. In his inauguration speech, incoming president Carlos Salinas de Gortari positioned the topic among the two priorities for the capital (together with security) and specifically demanded to the recently appointed Mayor, Manuel Camacho, to control pollution,

“I give precise, urgent and energetic instructions to the Head of the Federal District to act immediately with effective actions, encouraging the participation of the community in order to reduce crime and pollution” (Mexican Congress, 1988).

Probably as a means to avoid blame just in case things got worse, President Salinas turned air quality into a top priority for the city's mayor. This was the first time that air quality had to be addressed by the local administration. Under such scenario, the executive ordered the elaboration of the Integral Program Against Atmospheric Pollution in the Metropolitan Area of Mexico City (Programa Integral Contra la Contaminación Atmosférica en la Zona Metropolitana de la Ciudad de México - PICCA). The program was not the first of its kind;⁴⁰ unlike the others, however, it was jointly elaborated by an intergovernmental technical

⁴⁰ Other programs were the “100 Necessary Actions” and the Presidential Decree of February 14th 1986. Both were centrally designed but never fully implemented. They were just a series of specific actions that had to be carried out to fight environmental pollution.

secretariat composed of federal and local authorities of Mexico City and its metropolitan neighbor, Estado de México. Presidential instructions ended up making air quality the city's problem by breaking down the institutional ambiguities regarding its role.

The appointed mayor's commitment with the problem strengthened the city's takeover. From 1986 to 1988 Manuel Camacho Solís was the head of the Secretary of Urban Development and Ecology, which made him attached to environmental and urban problems. It was under his leadership when the Secretary dialogued with the environmentalist NGOs that were pushing the issue into the agenda. Additionally, Camacho was seen as one of the PRI's frontrunners for the next presidential elections (Miller, 1991). As stated before, the politicization of atmospheric pollution at that time made it a highly visible problem; therefore, someone like him with political aspirations could gain some adepts if things were handled correctly. Political gains boosted the mayor's interest in the topic as well as his continuous activism in the Program's implementation.⁴¹

Camacho had the local capacities to handle the issue and benefit from it. In other words, he did what he did because he could. His political maneuvers were supported by the technical work of the city's "environmental bureaucracy", embodied in the General Direction of Ecology, the General Coordination of Urban Restructuring and Ecological Protection and the General Coordination of Environmental Projects (FES, 1991; Lezama, 1997; Miller, 1991). The issue saliency in the 80's demanded specialized and technical abilities to handle the air pollution problem. By the 1990's the General Direction of Ecology had a highly qualified and relatively large workforce (around 600 employees) devoted specifically to the environmental policy (FES, 1991). They lobbied, for example, to attract the pollution monitoring network to the city's control and were also highly involved in the negotiations regarding the fuel reformulation (Interviews 33 and 45). They gave the technical advice necessary not only for the elaboration of the program but also on the ongoing actions.

Up to this moment, the environmental bureaucracy of Mexico City is well recognized by most actors (NGOs, Federal government organizations and other local governments) to be always one step ahead on institutional and technical capabilities (Interviews 2, 4, 13, 33 and 34). Many of them have scaled to (or come from) high-level positions in many public or private organizations at different levels. For example, Rodolfo Lacy was part of Camacho's team in the late 80's-early 90's; then he became undersecretary in SEMARNAT (till 2018) and

⁴¹ The following chapter elaborates a more detailed explanation on this.

currently is the OECD's Director for Environment; Sergio Sánchez was also in Camacho's team and then went to head the Clean Air Institute in Washington and for a short period was Under Secretary at SEMARNAT (December 2018- June 2019); Victor Hugo Páramo was General Director of Air Quality at SEDEMA, General Coordinator of Air Quality at the National Institute of Ecology and Climate Change (till 2018) and since June 2019 he is Executive Coordinator of the Environmental Commission for the Megalopolis. The bureaucracy provided the necessary expertise and technical inputs to support the rationality behind the political moves of Mexico City, therefore, playing an important role on the city's takeover of air quality. The problem was now in the city's agenda with a full involvement of the local administration.

3.3.2 Reframing the problem and coupling agendas in Paris

1995 marks the city's turning point for its involvement on air quality policy. Since then, the domain has experienced several changes mainly through investments in public transportation and modifications on street space. Results have been positive in the long run. As Halpern and Le Galès (2019) show, the car use decreased dramatically to one third between 2001 and 2010 thanks to the combined effects (and not necessarily joint work) by initiatives of the Île de France region, the Paris Council and other municipalities. In consequence, air quality has showed to improve in various areas of the city (Font, Guiseppin, Blangiardo, Gherzi, & Fuller, 2019).

But why after almost 20 years of inaction, the city's administration finally got involved? The answer is in the politization of the issue leading to its reframing. Discussions and actions at the European level, and local political pressure after a pollution crisis led to treat air quality as something of political importance. In addition, new in-scene actors such as the Île de France Region and the epidemiologist community contributed to show the health implications of transport pollution, turning air quality into an urban matter by linking vehicle emissions to respiratory diseases. Making air quality the city's problem was the result of a process of coordinative discourse between the abovementioned actors.

3.3.2.1 *Politization and problem reframing: the city's involvement and new in-scene actors*

Pollution episodes in the first half of the 1990s gradually increased the politization of the issue. Residents of the most polluted areas held protests highlighting the public awareness of the problem (Halpern & Le Galès, 2019), while opposition parties continuously challenged the longtime municipal inaction (Boutaric, 1997). Whereas social discomfort and political

contestation slightly increased the issue saliency, its local adoption came after the 1995 political changes, when the incoming administration reframed atmospheric pollution as an urban issue. As this section shows, a pollution episode during Jean Tiberi's first days in office and the increasing evidence on the links between pollutant vehicle emissions and health hazards changed the problem definition, making it the city's problem.

During his first months at the *Hôtel de Ville*, Jean Tibéri faced a pollution peak. The event mobilized NGOS such as *SOS-environnement* and the growing and harsh blaming opposition that pointed the many years of inaction, which demanded a deeper involvement of the local administration (Zittoun, 2008, 2013). As a response, Mayor Tiberi addressed to the Paris Council detailing the measures to be taken by the municipality to fight pollution. On the one hand, his communication delineated the hallmarks of his administration: the development of the tramway, the increase on cycling roads and the confinement of bus-lanes. On the other, the mayor demanded the State to act through fuel reformulation, reinforced vehicle controls and law enforcement by the Police Prefect (Ville de Paris, 1995).

This was the first time the local government delineated specific measures to fight atmospheric pollution. However, the most relevant element of this communication was the problem's new approach. For the first time, as the above quote shows, the Paris mayor linked pollution to vehicle emissions and highlighted its health effects. Sanitary concerns incorporated in the new problem definition were largely due to recent technical analyses linking air pollution to health hazards. Such technical evidence provided the elements to make a political argument and then the problem couldn't be evaded anymore. In his 1995 communication to the Paris Council, the mayor challenged the former notion of industry as the main polluter to acknowledge car use as the principal source. With these words Tiberi turned air quality into an urban concern.

“Alors que la pollution d’origine industrielle concernait essentiellement quelques dizaines de gros opérateurs, nous avons à faire face aujourd’hui à une pollution dont la source principale résulte du choix quotidien de plusieurs millions d’usagers qui peuvent librement sélectionner le mode de transport en fonction de leurs impératifs du moment” (Ville de Paris, 1995, p.2).

He not only shifted the blame for air pollution from industry to transport but also engaged in technical arguments to support this change. The mayor referred to the evidence showing the links between air pollution and “public health indicators” resulting from epidemiological studies. The below quote makes a special mention of the ERPURS study, carried out by the

initiative of the Regional Council. Its findings were key to underpin the consequences of pollution on human health. This study is particularly important to understand the interactions leading to the problem's insertion into the local agenda because through ERPURS the region provided technical arguments leading to policy change. This is explained in depth in the next section. Either way, with these arguments highlighting the causes and effects of the problem, the mayor formally, made air pollution the city's problem.

“il existe incontestablement des liens entre les indicateurs de qualité de l'air et les indicateurs de santé publique ... (Ville de Paris, 1995, p. 2). Toutefois, les résultats des études épidémiologiques récentes et, notamment, ceux de l'étude ERPURS ont attiré l'attention des responsables sanitaires sur les liens qui existaient entre des niveaux de pollution inférieurs à ceux retenus actuellement par les règles européennes et des indicateurs de santé publique, tout particulièrement pour les personnes sensibles” (Ville de Paris, 1995, p.7)

The focusing event of '95 and technical evidence from the ERPURS study turned air pollution into an urban problem, leading to the first local policy initiatives. As mentioned above, they comprised the promotion of alternatives to car-use such as bikeways, confined bus-lanes, and the beginning of the urban tramway's project. Despite the new framing, local political conflicts prevailed, and the opposition contested the timing and the sufficiency of the measures. Below is a quote from Bertrand Delanoë, the socialist leader in the Paris Council – and mayor from 2001-2014 – criticizing the measures,

“Un plan d'amélioration de la circulation des bus pour cette année qui traduit un traitement “homéopathique” du sujet : onze points noirs recensés dans toute la Capitale, et limités à dix arrondissements au total, “bénéficieront” d'aménagements marginaux... Finalement, aucune vision globale, aucun schéma d'ensemble destiné à améliorer le réseau de circulation des bus sur le territoire parisien... La vision urbaine de la Municipalité n'intègre que quelques inflexions à la marge, davantage destinées à calmer les esprits, qu'à agir sur le fond” (Delanoë, 1996)

The quote shows the criticisms for public transport planning and mocks the supposed effects of the current measures. In his communication, the socialist leader also judged the length of the bicycle paths and the number of confined bus-lanes (only two by 1996) as insufficient efforts to fight the problem (Delanoë, 1996). While criticizing the city's marginal actions, Delanoë's reactions illustrate how the renewed city's role in air quality created a political arena

where interactions between local and multi-level actors will fluctuate from coordination to conflict. Now its turn to explain the role of the region.

3.3.2.2 *The role of the Regional Council on the problem's reframing*

By the time air pollution began its politicization in the early 90s, the Île de France Region was still a young institution (see Chapter 2). While other actors (the State and its local branches, the city, and even AIRPARIF) had longer institutional and political presence, the region was formally “in the game” for only a few years. Despite its recent creation and the lack of formal competences on air quality, the Regional Council played a relevant part redefining the problem. These moves are not uncommon in the French context. According to Thoenig (2005), the absence of attributions in one domain is not an impediment for a territorial level to exert any kind of actions in a field that may be formally assigned to other territorial authority. Even if the *collectivités* have legally assigned competences, the division is often more subtle because, motivated by political purposes, public authorities can enter a policy area that belongs to the core domain of another territorial level (J. Thoenig, 2005).

In this case, air quality was outside the region's its portfolio of formal attributions.⁴² However, through a technical contribution which unveiled the links between pollution and health hazards, the Regional Council reaffirmed its role in an underinvested, growing-in-attention domain such as air quality (Boutaric, 1997). It was the *Observatoire Régional de la Santé*, a department of the Region's technical body, *L'Institut Paris Région*⁴³, the organization providing the necessary evidence to link pollution with cardiovascular and respiratory diseases, one of the main features highlighted by the city and the State (as shown in the next section) to re-define the problem.

During the eighties some studies in France explored the health effects of pollution without providing conclusive causal evidence. One of the best known is the Paarc (*Pollution atmosphérique et affections respiratoires chroniques*), developed by request of the Ministry of Environment in 1982. The study explored the effects of genetic and environmental factors on respiratory diseases in seven cities (excluding Paris) and concluded that pollution had moderate impacts on health (Boutaric & Lascoumes, 2008; Observatoire régional de santé Île-de-France,

⁴² As the next chapter will show, this is a persistent feature in policy implementation. For strategic purposes, the Regional Council implements actions in a particular domain that is not necessarily of their competence and justifies its particular intervention by a “larger” objective that falls in another domain of their competence.

⁴³ Back then, it was called L'institut d'Aménagement et Urbanisme de la Région Île de France (IAU). It changed its name in 2019. To avoid any kind of confusion, throughout the text the Institute will be addressed with its current name.

2014). Besides the nuanced results of the Paarc during the eighties, the scientific ground for the sanitary risks of pollution in France was basically neglected. Nonetheless, it showed some concern on the issue.

It wouldn't be until the beginning of the 90's when the Regional Council of Île de France requested the *Observatoire Régional de la Santé* to carry out a review of the international literature in the topic to unveil the magnitude of the pollution risks on health (Observatoire régional de santé Île-de-France, 2014). The evidence provided by foreign cases turned the literature review into a more comprehensive enquiry to study the effects of pollution in the Parisian region. That way the ERPURS program (*Évaluation des risques de la pollution urbaine sur la santé*) emerged in 1990. The study provided irrefutable evidence to link atmospheric pollution to health hazards in the Parisian region (Boutaric, 1997; Boutaric & Lascoumes, 2008; Charles, 2003; Fargette, 2000; Lascoumes, 2007a; Roussel & Charles, 2008).

According to the *Observatoire Régional de la Santé* (2014), the project's main objectives were two: (1) quantify the short-term health effects of pollution and (2) setting up a system to monitor such sanitary effects. To achieve such goals, the epidemiologist group conducting the study – headed by the *Observatoire* in partnership with scientists from the *Laboratoire d'Hygiène de la Ville de Paris* and AIRPARIF – compiled sanitary, pollutant emission and meteorological indicators (such as the daily measures of nitrous dioxide, ozone and particulate matter, the number of hospital admissions and deaths related to air pollutants, and humidity levels). Through the analysis of such indicators, the ERPURS team found what they had been looking for: an increase of health problems correlated with an increase in the pollutant emission levels. In other words, they found irrefutable evidence linking air pollution with health damages, which was also consistent with the international cases from the initial literature review.

The *Observatoire* marketed ERPURS findings by consistently communicating the results of each phase of the program. Its campaign got considerable media attention and attracted the interest of the authorities from the different levels of government (Boutaric, 1997; Observatoire régional de santé Île-de-France, 2014). As shown above, Tiberi used ERPURS to evidence the sanitary impacts of pollution, becoming one of the main drivers to take over the problem with an emphasis on citizens' health. Finally, as the final section shows, ERPURS' results had nationwide impacts by providing the Ministry of Environment with evidence to address the

issue in the negotiations leading to the 1996 *Loi sur l'air et l'utilisation rationnelle de l'énergie* (or LAURE).

3.3.2.3 *Redefining the role of the State and coupling national and local agendas*

Upon her arrival to the Ministry of Environment in 1995, Corinne Lepage initiated the legitimization process to pass a new air quality law seeking to, among other issues, control vehicle emissions. The newly appointed minister experienced a difficult discussion and consultation period due to the pressure of what Lascoumes (2007b) calls the *industrial-administrative lobby*, composed by the Ministry of Transport and the car manufacturing industry. The sectorial dynamics of the 1960s prevailed, leading to a direct involvement of the coalition controlling car pollution. For instance, it was the Ministry of Transport and not of the Environment, the one in charge of the negotiations – and subsequent adoption – of the first European Union Directives to control vehicle emissions (Vlassopoulou, 1999). The weak Ministry of Environment relegated to a secondary role had to deal with such a powerful coalition. However, current developments at the subnational and European levels provided the ministry with some leverage to carry out its reforms.

During the 80s – early 90s the issue became salient at the European level due to the Commission's interest on pollutant emission control. European directives regulating the main pollutants coming from vehicle exhaust – particles, lead, nitrous oxide, and ozone – placed transport in the forefront of pollution causes. Probably without realizing it, France's adoption of these regulations in 1991 (*Décret n°91-1122* of October 25) contributed to turn the problem into an urban matter by setting vehicle emissions as a one of the principal sources and delineating some actions to fight it (such as vehicle controls). The politicization of air quality in the European Commission extended the Ministry of Environment's maneuver margin to transform the problem considering not only industry but also vehicle emissions as the main pollution sources.

Besides European regulations, local actions played a relevant part reframing the problem, mainly due to ERPURS' results linking atmospheric pollution to health risks. As shown before, the program provided the necessary evidence for a sanitary turn to the prevailing technical-administrative rationale. According to Franck Boutaric and Pierre Lascoumes (Boutaric & Lascoumes, 2008, 2010; Lascoumes, 2007a), ERPURS triggered an “epidemiologist movement” that permeated into the national political arena. Indeed, the incorporation of a sanitary feature into the problem took away the problem's monopoly held by the Ministries of

Industry and Transport and the *Corps d'ingénieurs* (who integrated the DRIERE). With such a renewed standing, the medical corps provided strong support to the Ministry of Environment in the preliminary discussions of the '96 law (Roussel & Charles, 2008). In her memoirs, Corinne Lepage acknowledges the support of the epidemiologist community as a leverage to advance the '96 law (Lepage, 1998).

The 1996 law marked the coupling point of national and local air quality agendas, or, to use Scholten's terminology, the creation of the multi-level problem agenda. The problem reframing turned car pollution and its sanitary impacts into a matter of urban concern at the national and local levels. Following the redefined approach, the '96 law allocated, for the first time, competences to other government levels, mainly through the development of planning instruments: the Regional Plans for Air Quality, the Plans for the Protection of the Atmosphere and the Urban Mobility Plans. These plans, however, have still a strong State intervention. The Atmosphere Protection Plan is till today elaborated entirely by the State (through the DRIEE) and the Urban Mobility Plan is jointly elaborated between the Region and the State. All the government levels were now under a common understanding: air quality is an urban matter involving all of them. As the next chapter shows, in highly salient issues like this, the coexistence of multiple scales with shared attributions and different political orientations is a source of conflict and tensions with few incentives to coordinate.

3.4 Conclusion

The chapter has shown how collective, multi-level problem framing turned air quality into the cities' problem. For both cases, the combination of pollution crisis plus institutional and political changes reconfigured the governance arrangements. "New" actors appeared in the scenario and, through a process of coordinative discourses, contributed to insert into the cities' agenda an issue that had been historically managed at the national level. This is in-line with Scholten's argument that governance configurations lead to certain problem framings. In that sense, air quality policy went from a centralized conception to a multi-level perspective, recognizing the role of the city.

In the case of Mexico City, the 1988 electoral process was a key moment to insert the problem into the city's agenda. On the one hand, the civil society's previous demands found a place in a recently elected government looking for social legitimation. On the other hand, local conditions such as the incoming Mayor's background and political aspirations, combined with

a technically qualified bureaucracy, ranked air quality policy high in the priority list. The NGOs and politician's strategic actions reframed the problem to make it a matter of local intervention.

The Parisian case depicts a similar scenario. The decentralization process in the eighties created the regional councils, transferring them competences and some autonomy to conduct their own affairs. Still a young institution, the Île de France regional council used its attributions to study the link between air pollution and health. Through the ERPURS project, the region contributed to the sanitary turn of air quality, despite acting in a domain where it had no formal competences yet. Facing growing political opposition and social claims to address pollution episodes, the incoming Parisian administration turned air pollution into an urban problem. Following the region's technical contribution, Jean Tiberi's government acknowledged transport as the main pollution cause and highlighted its health risks. The transformed problem's view echoed at the State level, that introduced institutional changes in the 1996 law, thus formally acknowledging transport as one of the main atmospheric pollution sources with sanitary impacts.

Starting with Jean Tiberi, all the Parisian mayors have actively carried out air quality-related measures. In addition to the development of some bikeways and confining few bus lanes, Tiberi's most visible activity was initiating the construction of the Tramway Line in the south of Paris. Whereas the Tram was more a mobility solution that found accommodation in the air pollution problem, its tangible Parisian benefits with clear political implications secured the project's endorsement from the next, opposition mayor from the Socialist Party, Bertrand Delanoë (Zittoun, 2008, 2013). More than just the continuity with the Tramway project, the arrival of Delanoë to the *Hôtel de Ville* reaffirmed air pollution as a city's problem, reaching its highest profile with his successor, Anne Hidalgo, up to the point that it became one of the landmarks of her reelection campaign in 2020. Besides a commitment on fighting air pollution, the Socialist-Green coalition in the city hall since 2001 also explains Delanoë and Hidalgo's activism in the issue.

The comparison showed that despite contextual differences, institutional and political changes induced problem definition and local agenda-setting processes through coordinative discourses. This has two main implications. In the first place, the allocation of direct attributions had little or no influence in turning air pollution into the city's problem. In the case of Paris, direct planning competences only came after the '96 law, once the problem was already defined as an urban matter. The circumstances in Mexico City were different. Albeit the issue's early linkages to urban activity and its health implications, the city was absent in air

quality policy. The city took over the issue once the political conditions incited the government to act. In second place, it would be difficult to understand the role of institutional changes without politics and vice-versa. In both cases, institutional evolution mixed up with political processes to reconfigure the arrangements. However, as the next two chapters show, coordination dynamics in the Parisian case are more institutionally driven while in Mexico City, politics play a larger part.

Chapter 4. From command and control to blame avoidance motivated coordination air quality policy in Mexico City.

4.1 Introduction

A considerable part of the blame avoidance literature assumes that political parties and government levels blame each other in reaction to adverse events (Bache, Bartle, Flinders, & Marsden, 2015; Hansson, 2018; Heinkelmann-Wild, Kriegmair, & Rittberger, 2020; Hinterleitner, 2020; Tosun & Hartung, 2018; Weaver, 1986). Opposition parties point out controversies to erode the credibility of the government (Hansson, 2018; Hinterleitner, 2020; Weaver, 1986) whereas “policymakers on each level prefer shifting blame onto actors on the other level rather than their own” (Heinkelmann-Wild & Zangl, 2020, p. 956). Under these assumptions, blame avoidance dynamics fostering coordination between government levels ruled by different political parties may sound counterintuitive. This chapter shows that in combination with ideational, institutional, and political conditions in Mexico City, blame avoidance, rather than creating conflict was, during some time, the agglutinating factor for coordination processes. This is however, just one part of the story of air quality policy coordination in Mexico City.

The chapter argues that once air quality policy got into the local agenda, two aspects guided interactions: (1) a *référentiel* of central policy control and (2) a reputational factor (blame avoidance) within the air quality policy paradigm due to the problem’s saliency, proximity, and political history. Patterns of this kind act in combination with other factors locking in actors into particular forms of behavior (Crouch & Keune, 2005). In this case, those elements combined with institutional and political changes, altering power balances and re-orienting the interactions, leading to three coordination sequences (Figure 4.1).

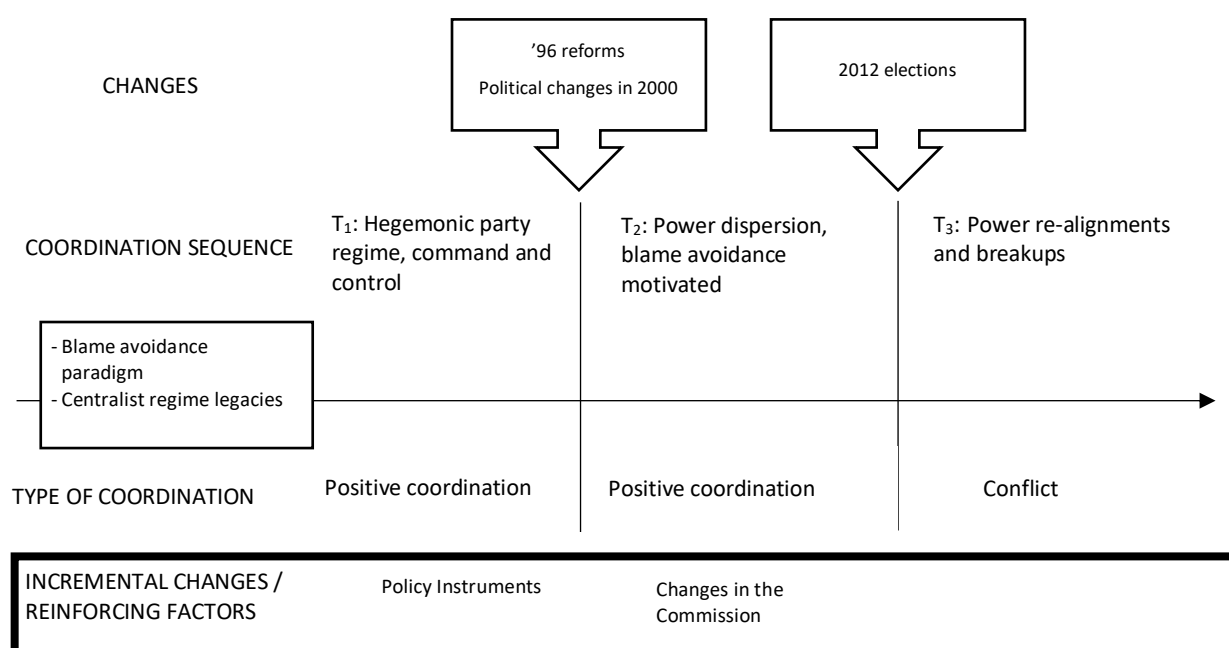
Section one of this chapter presents the first coordination sequence. In 1988, pollution crisis control was one of the incoming government’s main concerns for the city due to the worrisome pollution levels and the context of political turmoil pressing the regime to be more receptive to social demands (see Chapter 3). Being a presidential priority, the hegemonic party regime’s longstanding command and control tradition fostered sectorial coordination, leading to a decrease in the alarming pollution levels, and finally controlling crisis.

The second section shows how the political changes of the mid-90’s-early 2000’s re-oriented coordination. Despite being ruled by different political parties the involved levels of government in the Mexico City’s Metropolitan Area: Mexico City, Estado de México (the

neighboring metropolitan State) and the federal government coordinated to prevent the re-emergence of pollution peaks due to the likely harms on their political reputation. All this at the expense of fixing long-term pollution levels. To demonstrate this statement, the section illustrates the following causal mechanism: (1) the saliency, proximity and history of pollution peaks in Mexico City turns them into blame generating events; (2) competences on air quality policy instruments are distributed evenly among Mexico City, Estado de México (the neighboring metropolitan state) and the federal government; (3) the interrelation of policy instruments under the pollution management protocols made all the actors to blame by the general public and their different communities in the case of a pollution outbreak; (4) to avoid reputational harms, politicians and public office holders from various parties and government levels engaged in a blame avoidance strategy by adjusting policy instruments to decrease the frequency of pollution peaks; (5) as a result, these events dwindled to barely one per year (see Graph 4.2), contrasting with a marginal decrease of equally health-threatening long-term pollutant exposure (see Graph 4.1).

Section three shows how the mechanism broke down when political changes, instrument readjustments (once used to avoid blame), and meteorological conditions brought back pollution peaks. The 2012 elections altered the power balances leading to changes in policy instruments, making the strategy to fall apart. These factors contributed to have pollution peaks again, leading to blame allocation and conflict. Additionally, the incoming federal government, once again in the hands of the PRI, transformed the Metropolitan Environmental Commission seeking to create a blame-avoidance organization and to regain policy control. The dynamics portrayed in this last sequence show (1) the blame avoidance dynamics as a feature of the air quality policy paradigm affecting coordination processes and (2) the persistent centralist legacies of the federal government. Changes in the institutional context reoriented the interactions in reference to these two elements.

Figure 4.1 Coordination sequences in air quality policy in Mexico City



Source: Own elaboration

4.2 Coordinating under the president's commands

4.2.1 The policy origins

The pollution crisis of the eighties (see previous chapter) encouraged a more active governmental role through policy instruments. Emission standards, the pollution index, driving restrictions, vehicle controls as well as contingency measures, all were created to control the pollution crisis. Despite their somewhat innovative stand, they had limited impact in decreasing atmospheric contamination. Graphs 4.1 and 4.2 show that during the eighties and the first part of the nineties, pollution peaks were recurrent and the number of days with health threatening pollution levels didn't decrease until the 2000's.

Probably the main contribution came from the standards and the index that gave the first notions of the pollution levels. Based on the World Health Organization's criteria,⁴⁴ the Secretary of Health published emission limit standards for the first time in 1982. Pollution levels were communicated through the once called Metropolitan Index for Air Quality (widely known as IMECA), elaborated in 1982 and finally made public in 1986. With the reinstalled

⁴⁴ Such criteria would be later turned into Mexican Official Norms (NOM) that determine the highest permissible emission limits with a shared responsibility for its elaboration between the federal secretaries of environment, health and economy.

monitoring system in 1986⁴⁵ it was now possible to contrast the standards to daily pollutant emissions and disseminate the information to the public. Back then, the attribution to calculate the index relied in the Secretary of Health and the National Commission of Ecology.⁴⁶ As of 2006 it was renamed as the Air Quality Index (ICA) and became a local norm, calculated by the Secretary of Environment of Mexico City. Till today the index is linked to federal regulations that establish the maximum thresholds of daily pollutant emissions (the so-called called NOMs).

It was the index data what alerted of the extremely high pollution levels. In 1986 alone, the monitoring stations recorded 47 registries with more than four times the permissible limits. November 25 of that year is recorded as the most polluted day in Mexico City's history when the index reached almost five times the permissible ozone thresholds (SEDEMA, 2012). Such alarming concentrations led the Federal Government, through the National Commission of Ecology, to implement in May 1986 an "environmental contingency plan" comprising the slowdown (or even shut down) of industrial activity, stricter driving restrictions, and, if the levels became even more dangerous, the population was advised to stay indoors and avoid any kind of outside activity (CDMX, 2019c).

There was not much improvement. According to the Secretary of Social Development, ozone concentrations even increased between 1986 and 1991, reaching its highest levels the last two years of that period (SEDESOL, 1992, p. 9 and 14). Being pollution levels still a strong concern, the incoming government put in place two additional instruments. One were temporary driving restrictions for the winter of 1989-1990 (Miller, 1991) under the name "A day without a car". It then turned into a permanent program in February 1990 with the name "No driving day" (*Hoy No Circula*). The second were twice-a-year mandatory emission inspections for all the vehicles of the metropolitan area, called the "Vehicle Verification Program". As Graphs 4.1 and 4.2 show, improvement was limited. Neither the days with bad air quality (Graph 4.1), nor the number of pollution peaks (Graph 4.2) decreased by the end 80s – early 90s. This brief description of the origins of the policy instruments is important for the chapter because, despite their limited contribution to lower pollution, their creation at that

⁴⁵ Atmospheric pollution monitoring began in 1967 with 14 sulfur-monitoring stations. The set of stations were known as the Pan-American Network of Normalized Sampling, and accounted four stations in Mexico City's Metropolitan Area (MCMA). By 1972, it was renamed as the System of Atmospheric Monitoring (SMA), and acquired 48 stations, 22 of which were installed in the metropolitan area. They were used sporadically (Garza & Aragón, 1995) and operated until 1980. By 1984 it was reactivated and in 1986 it was fully operational.

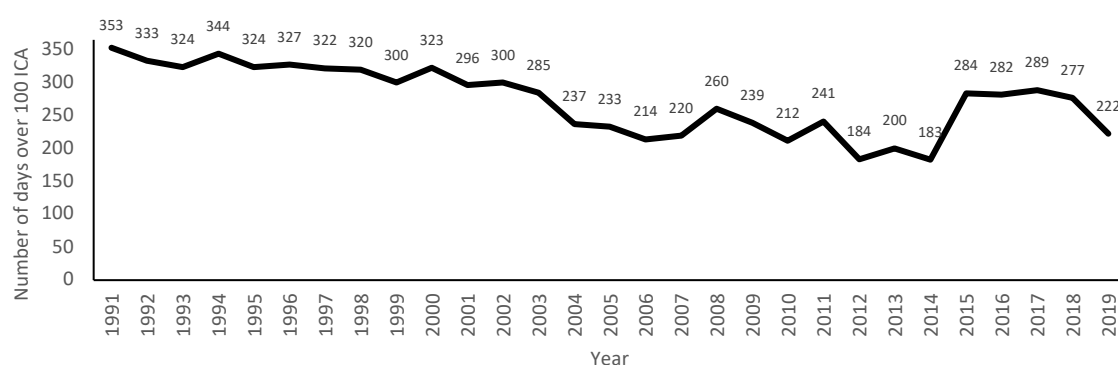
⁴⁶ The National Commission of Ecology (CONADE) was created in 1985 to foster inter-sectorial coordination (Agreement to create CONADE, 1985). It played an important technical role for the actions included in the Presidential Decree of February 14th 1986.

time would set the pace of air quality policy. By that time, however, measures had to be at a larger scale.

4.2.2 Desperate times require... presidential instructions

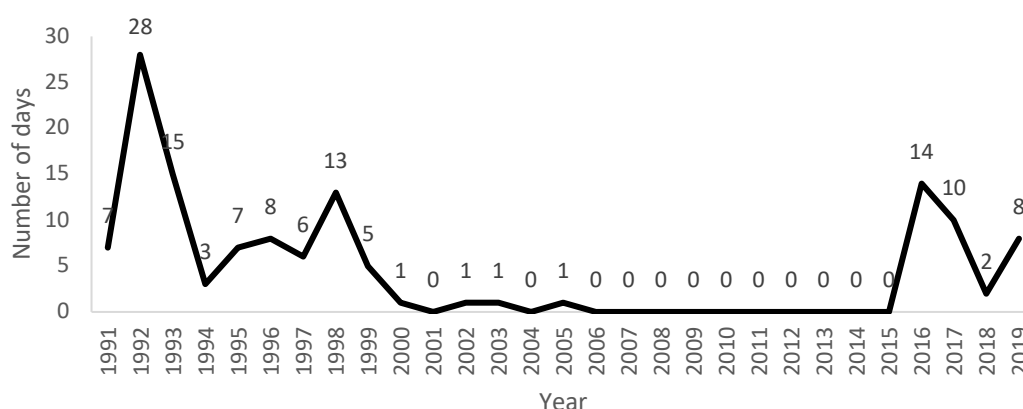
The federal government realized that under persistent high pollution levels, major, inter-sectorial actions were needed. To do so, the executive envisaged a way out through the Integral Program Against Atmospheric Pollution in the Metropolitan Area of Mexico City (commonly known as PICCA). The program was jointly formulated by authorities from Mexico City, Estado de México and the Federal Government. Being the City part of the federal government's administrative structure and Estado de Mexico in the hands of PRI, the involvement of the different sectors into the Plan's formulation represented no problem. The same applied for previous plans such as the Program to Fight Atmospheric Pollution in the Mexico City Metropolitan Area and the "Decree of February 14th" involving all the concerned sectors with a common understanding in the issue (Garza & Aragón, 1995; Molina & Molina, 2002c). The devil, however, was in the implementation.

Graph 4.1 Number of days per year with health-threatening pollution levels



Source: Own elaboration with data from official documents and reports. The data considers the number of days exceeding the pollution index standards of either ozone, PM10 or PM2.5. As of 2014 the federal regulations were updated to set tighter pollution standards. The limits over 100 ICA points from 2015 onwards are under the new calculations. Data from 1988 to 2000 was extracted from the Programs to Improve Air Quality in the Metropolitan Area of Mexico City (known as PROAIRE 1 and 2); 2001 to 2007 and 2011 to 2017 from the Annual Reports on Air Quality of SEDEMA; 2008 to 2010 and 2018 from the website of the Secretary of Environment of Mexico City, <http://www.aire.cdmx.gob.mx/default.php?opc=%27aqBjnmU=%27> (October 17 2019)

Graph 4.2 Number of days with air pollution crisis per year



Source: Own elaboration with information from Mexico City's government (CDMX, 2019).

Taking the Program into practice would not be an easy task. Just as the preceding plans, carrying out the new one involved the participation of many federal-level Secretaries and organizations whose interests had to be reconciled. Indeed, it was the multi-sectoral nature and further the lack of coordination what limited the impacts of previous plans (Garza & Aragón, 1995; Molina & Molina, 2002c). Inter-sectorial coordination was once again the main hurdle for the Program's implementation. To comply with presidential instructions (see previous chapter), the city was dependent on other secretaries and agencies actions to decrease pollution levels through the new plan. Miller gives a good example of such dependence relationships,

“[W]hile the Mayor has the power to license and regulate the operation of vehicles that circulate in the city, he lacks the authority to regulate vehicle design. Thus, if the Mayor decided to combat air pollution by requiring catalytic converters in all new automobiles, he would need the support of the Secretary of Commerce and Industry, who works with automobile manufacturers, to establish design and production goals. He would also need the assistance of the Secretary of Energy... to assure that PEMEX would be able to produce or purchase an adequate supply of the unleaded gasoline required for use with catalytic converters. Finally, the Mayor would need the cooperation of SEDUE [Secretary of Urban Development and Ecology], which sets emissions standards” (1991, pp. 188–189).

The main issue with the plan was that it distributed tasks according to the attributions set by the 1988 Law, without any formal incentives for their compliance. Energy and industry sectors concentrated most of the plan's actions through fuel reformulation and car-industry regulations. Energy has been historically a federal competence through the Secretary of Energy (formerly

the Secretary of Energy, Mining and Government-controlled Industry) and the Mexican Oil State-owned company, PEMEX. Industry, on the other hand is regulated by the Secretary of Economy (formerly the Secretary of Commerce and Industrial Development) (D.F., 1990). Ministerial politics was yet another hindrance for the plan's execution with cabinet members following their own political agendas and aspirations.⁴⁷ As described by one civil servant working in Mexico City's administration at that time, in such a regime, all the Secretaries were fiefdoms which acted under each minister's particular logic or situation,

“We have to say that the Department of the Federal District [Mexico City's former name till 1997] and the Under-secretary of Ecology were from the Federal Government. They were subordinated to the President, however, the personalities at the head of the Secretaries and the Mayor, they drew a line between them. We have to remember that in times of the PRI, when there was a dominant party, the secretaries were true power feuds and the Department of the Federal District was no exception. On the contrary, the Department always handled itself as an independent entity” (Interview 45).

This quote acknowledges once again the ministerial politics that could hinder coordination. However, timing made it different. Unlike the previous plans, presidential intervention and the Mayor's involvement fostered inter-sectoral coordination. Given the hegemony of the President due to the regime conditions, bringing all the sectors together required presidential intervention. As seen on the previous chapter, the political turmoil caused by the 1988 elections and the civil society's pressure raised presidential awareness, putting the issue as one of Salinas' top priorities in the City.

Additionally, Mayor Camacho saw in pollution control an opportunity to gain adepts for a future presidential nomination. Besides his political ambitions, Camacho was hard pressed by the negative reactions from the “environmentalists” (such as the Group of the 100, mentioned in chapter 3) accusing him for the program's poor results and for ignoring the president's commitments (Williams, 2001). In consequence; the mayor used his personal ties to make the case to Salinas (Camacho was a close college friend and presidential campaign manager) for a more hierarchical pollution control policy-making, where the City could assume a predominant role (Williams, 2001). According to one of the interviewed public officers, the mayor told the President “I need you to put me on the lead and tell the others to line up together because if not, this is going nowhere” (Interview 33). To overcome the political fragmentations, the

⁴⁷ It was a common practice that the President's appointee to succeed him came out of his cabinet members.

“Commission for Pollution Prevention and Control in the Mexico City Metropolitan Area” (the Commission) was created by Presidential Decree in 1992 “as an act of magic” (Interview 33). More than an act of magic it was the timing and the mayor’s political interests and abilities what led to the creation of the coordinating body, leading to joint actions from all the secretaries.

The Commission’s purpose was to be a coordinating body among the sectors involved in the air quality problem particularly to implement the program and manage an environmental trust fund created later in 1992 (activated in 1995) (CAME, 2016; Molina & Molina, 2002c). Mexico City, Estado de México and the Secretary of Urban Development and Ecology (SEDUE) were the key members, although other secretaries were also part of it (Secretary of the Treasury (SHCP), Energy, Communications and Transports, Health and PEMEX) (Mexican Government, 1992). For its operation, the creation decree established two relevant figures: a two-year rotatory chair to be held first by Mexico City and then would be assigned to Estado de México and the Secretary of Urban Development and Ecology; and a technical secretary, appointed by the President who oversaw the day-to day operations.

Through the commission, the city had now control of the pollution problem. Not only was Camacho the Chairman but he also succeeded in getting his “right hand” on environmental affairs, Fernando Menéndez, to be selected by Salinas as the Commission’s technical secretary (Williams, 2001). This position granted the City with a direct line of communication to the President for treating the issue. According to a chronicle of Fernando Menéndez, the President was constantly monitoring the policy and asking for the progress on the implemented measures,

“Every time the Regent [Camacho] and I went to Los Pinos [the official residency] to review the programs on fuel lead removal, the use of catalytic converters, the *No driving day* program, the Plan for Environmental Contingencies and even the closure of the “18 de Marzo Oil Refinery”, at the end of each session, Salinas asked me to stay to refine the environmental policies and to assign me other tasks. Camacho got jealous and questioned me. I only replied that Salinas trusted me and that was it” (Ramos Magaña, 2019).

Unlike previous coordinating bodies, the Commission succeeded on decreasing the alarming pollution levels that gave saliency to the problem in the first place. Timing and the city’s entrepreneurship were crucial to get the President’s attention and conform a coordinating body to guide the actions of the different sectors to comply with their tasks enunciated in the Integral

Program. That way, Pemex and the Secretary of Energy removed lead from the fuel formula in 1994 (Garza, 1996). Other actions followed such trend and were determinant to improve air quality, such as the closure of the “18 de Marzo” oil refinery in 1991 that decreased emissions of some “criteria pollutants” such as sulfur dioxide (SO₂) and lead.⁴⁸ According to Molina and Molina

“The most significant reductions in air pollution are attributable to the introduction of catalytic converters [a regulation enforced by the **Secretary of Industry and Commerce** to the auto industry] and the improvement in fuel quality, and to some extent, the implementation of stricter industrial standards and the conversion of power plants to natural gas [implemented by the **Secretary of Energy and PEMEX**]” (2002c, p. 47).

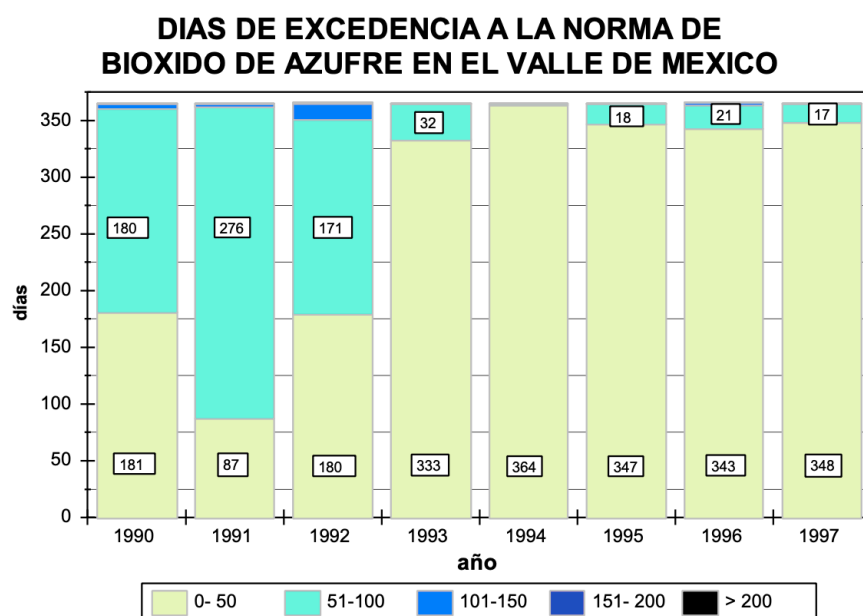
Graphs 4.3. and 4.4 taken from the 1997 Air Quality Annual Report evidence such achievements. There is a constant decrease of daily SO₂ concentrations. The pollutant dropped drastically from its highest of 276 in 1991 to 17 in 1997 (Graph 4.3). According to the report, the decrease has its origins in fuel substitution (gasoil instead of fuel oil, the use of natural gas and low-sulfur diesel) and the closure of the oil refinery (SEDEMA, 1997). As Graph 4.4 lead concentrations also present a radical decrease in the three monitoring stations (xalostoc, merced and pedregal) between 1990 and 1997 mainly due to changes in the fuel formula. Top-down coordination was behind such accomplishments.

Right after the problem got into the agenda and reshaped the governance arrangements (see previous chapter), the first interaction sequence consisted of a command-and-control modality. In the absence of institutional incentives, the power exerted by the executive under the hegemonic party regime was a necessary condition to link all the sectors and make them to fulfill the tasks conferred to them by the Integral Program Against Atmospheric Pollution in the Metropolitan Area of Mexico City. Acknowledging this, the Mayor’s strategy was to get the President’s attention to align the different sectors to achieve the program’s goals. However, if we contrast lead and SO₂ data with ozone and particulate matter (Graph 4.1) we see that while there is a decrease in the first two, the others remain constant and, in the best-case scenario, the city is highly polluted half the year. The explanation is in the following

⁴⁸ The U.S. Environmental Protection Agency (EPA) calls them criteria pollutants because they set the air quality standards based on the “latest scientific information regarding their effects on health or welfare” (EPA, 2018). These commonly measured compounds are sulfur dioxide (SO₂), carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃) and particles under 10 microns (PM₁₀) and under 2.5 microns (PM_{2.5}). The latter are one of the most harmful air pollutants causing respiratory and cardiovascular diseases.

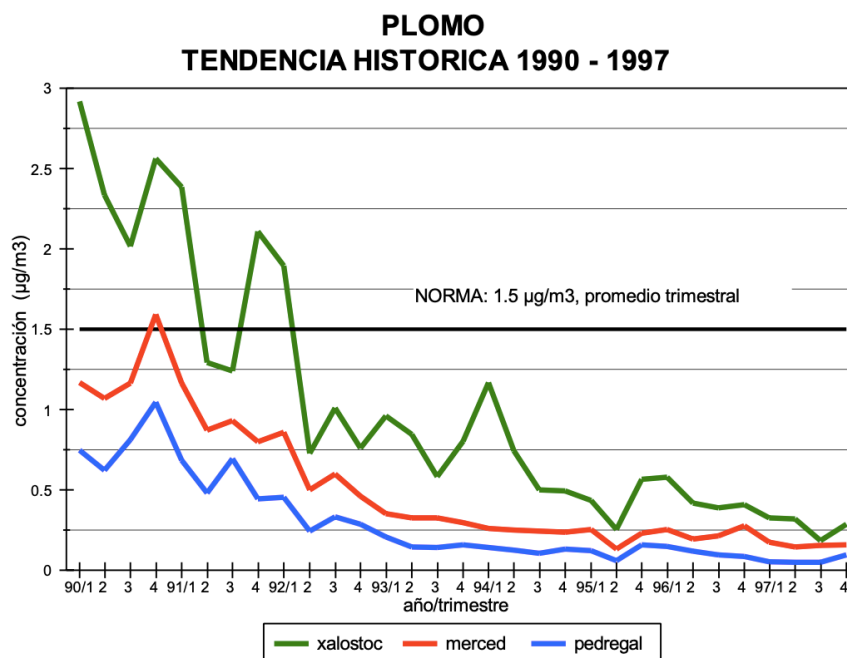
coordination sequence taking place after the 1996 constitutional reforms (section 4.3), where path dependent problem legacies, combined with the actor's joint strategy to avoid the blame coming from pollution peaks, defined interactions, and policy results.

Graph 4.3 Days exceeding sulfur dioxide concentration standards



Source: SEDEMA (1997, p. 29)

Graph 4.4 Lead, historical trend.



Source: SEDEMA (1997, p. 37)

4.2.3 Reconfiguring relations

Large-scale actions to cope with the still high pollution levels continued throughout the first half of the nineties. As mentioned above, the closure of the oil refinery “18 de Marzo” located inside Mexico City, the reformulation of fuel and the regulations concerning the use of catalytic converters on cars contributed to reduce atmospheric pollution. Once the crisis was contained, preventive, long-term actions were sporadic, and the day-to-day pollution control was the norm. For example, after the 1982 emission criteria, the Mexican Official Norms on pollutant emission limits were finally created in 1993 but remained untouched for more than 20 years despite complaints from various NGOs regarding the loose standards. Besides the operation of a joint-managed fund to develop air quality projects, the focus thereon would be on policy instruments related to crisis control and management rather than long-term policy measures.

Interactions between the local and federal governments continued through the Metropolitan Commission. In 1994 it signed an agreement with the Secretary of the Treasury to constitute an Environmental Trust Fund (Fideicomiso Ambiental- F1490) to support the commission’s work by funding projects and actions to fight pollution at the metropolitan scale (Roccatti, 2007).⁴⁹ Three main actors –Mexico City, Estado de México and the recently created Secretary of Environment, Natural Resources and Fisheries (SEMARNAP)⁵⁰ –jointly decided the resource allocation on different projects and actions. They ended up distributing the money evenly to bring projects back to their jurisdictions (even if they were not of metropolitan scope). In fact, as Molina and Molina (2002c) indicate, there is no record that that any amount being denied. Former federal and local officers that participated in the Commission sessions share that impression. As former high-level federal officer recalls,

“I was in those sessions several times. The representatives from D.F. [Mexico City], the Federal Government and Estado de México sat down, and they divided the money between them. More or less, they took the equivalent to what they have contributed” (Interview 8).

Similarly, a former Estado de Mexico fonctionnaire indicates that each government sought to bring projects to their jurisdictions, without mattering that much if they had or not a metropolitan reach,

⁴⁹ Its funding source was a surcharge of \$0.02 pesos per gas liter sold. An executive committee formed by Secretary of Treasury (SHCP), SEMARNAP, Mexico City and EDOMEX managed it.

⁵⁰ Was created in 1994 and replaced the Secretary of Urban Development and Ecology as the body in charge of environmental policy.

“[T]hey were really as quotas. “I, D.F. [Mexico City] want project X and I, Estado de México want the project Y.” There was nothing metropolitan about it, everybody did what they wanted” (Interview 16).

Both quotes reveal that the trust fund rules were able to create interdependencies by aligning the actors’ strategies within the Commission. All the actors agreed jointly on funding allocation with an equally satisfying outcome for everyone. They had an even vote to decide the funding destinations by distributing money that came from a tax collected by fuel sold on gas stations situated on their respective locations. In other words, the fund fostered a coordination process due to its formalized procedures and its negotiation-enhancing features. Using a less bluntly wording, a former civil servant from Estado de México recognizes that local governments negotiated to bring projects back to their jurisdictions without necessarily a metropolitan perspective,

“In the Commission both secretaries [of environment from Mexico City and Estado de México] met and said, “hey there is an interest of doing a project for something” and they look for a coincidence; or both coincided in recommendations they received from the experts. Sometimes a secretary [of environment from either local government] came with the interest for pushing in Mexico City a project of something and a project of another thing in Estado de México” (Interview 13).

The fund did not just fostered interdependencies leading to coordination; despite the lack of metropolitan vision, it had positive results by supporting long-term projects to reduce pollution levels (Molina & Molina, 2002a; Roccatti, 2007). One example is the Vapor Recovery Program (*Programa de recuperación de vapores*) implemented in gas stations to prevent the vaporized gasoline from being released into the environment and generate harmful emissions (OECD, 2003). Despite some positive results, by 1998 the Ministry of Treasury cut the fund’s income source arguing a “public finance efficiency principle” (OECD, 2003). The timing, however, matched ongoing institutional and political changes. Cutting off the fund could also represent the Federal Government’s stepping back from air quality policy due to structural changes related to the Mexico City’s political status.

As mentioned in chapter 2, Mexico City got its first elected mayor in 1996, granting more autonomy to conduct its own policies. Cuauhtémoc Cárdenas, from the Democratic Revolution Party (PRD) won the first elections in 1997. Coming from a party other than President Zedillo’s (PRI) meant the end of central control over many of the city’s affairs. Acknowledging that, the

Federal Government downplayed its role not only in the Trust Fund but also in the Metropolitan Commission. By 1996 the Commission underwent several changes affecting the interactions within (Mexican Government, 1996). For instance, the rotatory presidency would be only between Mexico City and Estado de México, taking away the obligation for the Federal Government. As for the members, only the local administrations, and the Secretaries of Health and Environment (SEMARNAP) remained permanently. The participation of other sectors (PEMEX, Secretary of Energy⁵¹, Secretary of Commerce and Industrial Development) was no longer mandatory. According to a local high-level officer on environmental affairs witnessing the transition (worked from 1991 to 1998 in Mexico City), the Commission weakened because the mutually-dependent sectors were not co-responsible on the implementation and had no longer to report what they were doing,

“It [the Commission] lost the strength it had when everybody had to report its actions. That’s how it worked for many years. It had positive and negative impacts. Positive because it had the intention to empower the local governments but also negative because traditionally the communication, not to say coordination mechanisms, haven’t worked well between Estado de México and Mexico City, even with the same political party and the result is that the mechanism weakened through time” (Interview 33)

Without the presidents’ control, there was neither a powerful authority to encourage the involved actors to coordinate, nor an institutional structure strong enough – with the right incentives and enforcement scheme – to guide the interactions. Under the new political conditions, the direct involvement of the president was out of the table, and there was not a position powerful enough from the federal environmental sector to exert any pressure on the other secretaries.⁵² Moreover, the political and administrative autonomy of Mexico City and Estado de México prevented any kind of formal subordination to the Federal Government. This was the main difference between the first, integral program, launched by the Salinas administration and subsequent plans. The abovementioned officer recalls that the first program’s coordination and positive impacts were mostly due to presidential control,

“At first the anti-pollution plan [Integral Program Against Atmospheric Pollution in the Metropolitan Area of Mexico City] worked well because it was a political commitment,

⁵¹ Formerly Secretary of Energy, Mines and State Controlled Industries.

⁵² The Secretary in charge of the environmental policy has always been one of the less favored in budgetary terms, leaving it in a powerless position in comparison to other offices such as Energy, PEMEX or Treasury (Romero-Lankao, 2000).

but with the next ones there is no mechanism to force other actors such as the Federal Commission for Electricity, or PEMEX, or the transport sector to commit with the main directives” (Interview 33).

In addition, the Commission didn’t have any kind of budget or formal administrative structure to operate. It was entirely dependent on the financial and human resources of the government holding the chair.⁵³ Staff members of the Commission were the same civil servants performing local public administration tasks, therefore acting “according to the logic of their own organizations or government levels” (Lezama, 2006, p. 524). Without formal incentives to hold any sessions, the members of the Commission reduced the frequency of the meetings. Federal and local fonctionnaires attributed the lack of interactions to political changes and the lack of instruments fostering interdependencies. A former federal officer acknowledges that the new party distribution and the absence of money affected the intensity of the meetings,

“CAM [the Commission] diminished its intensity after the political changes. With [the relationship] PRI-PRD, didn’t’ met that much, there wasn’t even a trust fund because they removed the fuel surcharge” (Interview 8).

According to a former EDOMEX civil servant, there was still some money left from the trust fund, so that was the only reason behind the remaining interactions,

“I think that the CAM was still working because they haven’t spent all the money yet and the rules of the trust fund required that for approving any project, the commission had to session” (Interview 16).⁵⁴

There was still, however, an important matter keeping the Commission running and fostering coordination: crisis prevention and control. As already mentioned, sectorial cooperation was at its minimum level and the commission sessions almost vanished if it wasn’t for the trust fund remnants. Nevertheless, there was an imperative that concerned all the actors: do not fall back again in a scenario such as the end 80s-early 90s. All the actors were concerned because they all held attributions on air quality-related policy instruments. Therefore, the only way they could prevent that was by working together, otherwise they would face severe reputation

⁵³ For some time, EDOMEX had a small administrative structure devoted specifically for metropolitan environmental coordination.

⁵⁴ Even if the Secretary of Treasury cut the funding source, some projects were financed by F1490 after 1997. The fact that it was a trust fund meant that the money hasn’t to be spent entirely during a budgetary year and remain indefinitely. At least until SHCP determined otherwise.

harms. In other words, they had to avoid the blame coming with crisis episodes. That is what the next sequence is about.

4.3 Managing stability through blame-avoidance motivated coordination

Despite the partisan diversity, authorities from the federal government, Mexico City and Estado de México developed a joint blame avoidance strategy by setting up crisis control as the main objective and adjusting policy instruments to meet such goal. Shared competences on air quality policy instruments among the three governments (Table 4.1), combined with a distribution of political power between the major political parties (see Chapter 2) led to another coordination sequence to control crisis. Then, as shown in the third coordination sequence (section 4.4), changes in the balance of power after the 2012 elections, along with incremental instrument readjustments challenged the arrangements and brought crises back. The joint strategy was only possible and also fell apart due to the combined effect of policy instruments, balance of power, and consequent political changes. At first, shared power in the instrument's competences encouraged the formation of an arrangement to adjust the instrument mix to avoid blame; later on, contextual changes altered the balance of power, leading to instrument mismatches and destabilization of the arrangements.

4.3.1 Choosing the battle: Crisis control as the policy objective

From 14 to 16 May of 2019, a pollution episode placed (once again) Mexico City (CDMX) as one of the most polluted cities in the world (IQAir, 2019). Such infamous title was the result of a series of events like forest fires, (unfortunate) meteorological conditions plus the usual emissions of traffic congestion and day-to-day urban activity. When asked about the issue in his daily morning press conference, President López Obrador (AMLO) triumphantly acknowledged that when he was Mexico City's Mayor (2000-2006) the city had just one pollution peak,

“When I was Chief of Government of the City [Mayor], she [Claudia Sheinbaum, current Mayor since 2018] was Secretary of the Environment and at that time, it's not to brag or to make my adversaries angry, but at that time only one day we had crisis”⁵⁵ (López Obrador, 2019).

This quote helps to illustrate the prevailing approach on short-term pollution management in Mexico City. Once the worst days of the late 80's-early 90's crisis were over, pollution peaks

⁵⁵ Actually, they were three. See Graph 4.2.

decreased dramatically from 1999 onwards (see Graph 4.2). For more than 15 years, local and federal governments were able to manage pollution peaks and lowered their occurrence to barely one event per year. Authorities from both government levels made of crisis control the main target of air quality policy and successfully achieved it. As shown in Graph 4.2, since 1998 and till 2015, pollution peaks present a decreasing trend. The way they did it was by adjusting policy instruments contained in crisis management protocol. Competences over these policy instruments are scattered around local and federal government, therefore both levels worked together in order to prevent pollution outbreaks. As this section shows, air quality was not necessarily improving, crises were just under control.

In contrast to the drop in pollution episodes, long-term concentrations remain high. The World Health Organization indicates that this type of exposure is as health-threatening, if not more, as short-term pollution incidents (WHO, 2017). Policy results in that subject have been poor. As shown in the previous sections, during the early-mid 90s regulations and other measures improved air quality by decreasing contamination levels (Molina & Molina, 2002c; Roccatti, 2007). Despite such progress, Mexico City still outcasts the World Health Organization's thresholds on particulate matter (PM_{2.5}). The city exceeds maximum daily pollution standards by most of the year without significant change over time. Graph 4.1 shows the number of days with bad air quality represented by the Air Quality Index (ICA). When the indicator goes over 100 points, it means that air quality is considered harmful or non-satisfactory (SEDEMA, 1992-2017). Even if emission levels present a decreasing trend, year by year, and by the most of it, the 100 ICA points benchmark is not met. In the best-case scenario (back in 2012 and 2014), pollution levels were health threatening by half of the year. If these criteria were chosen, the policy would be far from considered a straightforward success.

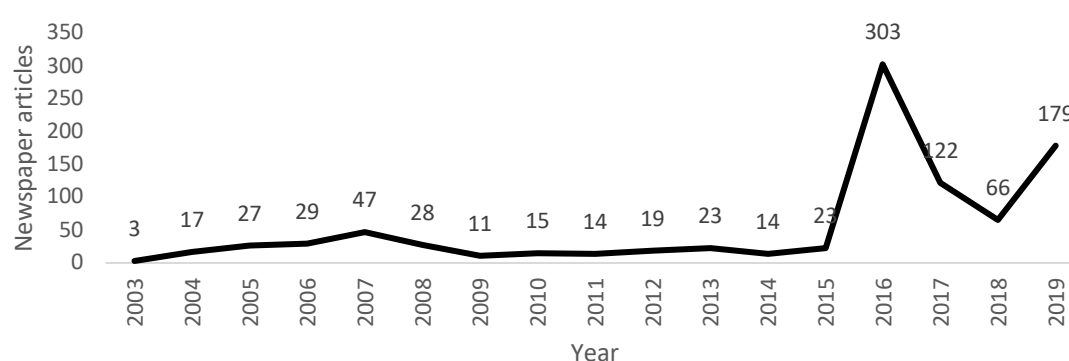
A particularity of pollution peaks is that they result from contaminant emissions combined with meteorological conditions out of policy reach. As explained by the Megalopolitan Environmental Commission of Mexico, ozone formation, the main component of smog, accelerates with high temperatures, and in the absence of rain and with low wind speed, it stalls in the city. Therefore, "when these adverse conditions coincide, it is enough to have just a minor fraction of typical pollutant emissions to reach very high ozone concentrations ... Each year, between March and June, these precise conditions are present in the Metropolitan area of Mexico City," (CAME 2020). If the chances are that pollution outbreaks occur now and then, during identified periods, why did they vanish for so long? How come did long-term pollution remained high? This sort of paradoxical situation, where the city accounted for high daily

pollution levels without outbreaks is the result of a strategical calculation to avoid the blame coming with pollution peaks.

These events are prone to be blame generating events in Mexico City due to their proximity (or their immediate effects on people's lives), saliency (Hinterleitner, 2018; Soss & Schram, 2007), and its political connotation. Citizen's perception and media coverage help to illustrate the first two elements. Regarding their proximity, public perception studies show that Mexico City inhabitants consider the city highly polluted with significant health effects: more than 80% of teenagers consider the pollution levels as high and very high (Catalán-Vázquez, Riojas-Rodríguez, Jarillo-Soto, & Delgadillo-Gutiérrez, 2009; Landeros-Mugica, Ortega-Andeane, Reyes-Lagunes, & Sosa-Echeverría, 2014). Besides health concerns, during pollution crises extraordinary measures are implemented to decrease pollutant levels as soon as possible. Such measures imply diverse restrictions (on driving, industry, and business operation) that are far from popular (Bovens & 't Hart, 2016) because of their effects on the socio-economic activities of the population that lives or works on cities (Davis, 2008).

Pollution episodes are also highly salient issues receiving considerable media attention. As seen in Graph 4.5, the number of press articles covering air pollution increased dramatically in 2016 (more than one hundred more articles compared to the previous year), when pollution peaks were back after years of stability. Then again in 2019 when pollution levels increased dramatically, the media coverage augmented.

Graph 4.5 Media coverage of air quality per year



Source: Own elaboration with data extracted using Factiva.⁵⁶

⁵⁶ The number of articles was obtained through a search in the database Factiva using the keywords *contaminacion*, *calidad del aire* and *Ciudad de Mexico* (pollution, air quality and Mexico City) for three mayor national newspapers that have a section devoted to Mexico City: La Jornada, Reforma and El Universal.

As shown in the previous chapter, air pollution in Mexico City has a political birthmark linked to the socio-political turmoil of the end-80s with a constant involvement of the civil society and NGOs. The events of that time turned the air pollution problem into a political and social concern that stuck in the mind of Mexico City's inhabitants. As Landeros-Mugica et al (2014) show, those who witnessed the late 80's-early 90's crisis are more aware of the problem than younger generations. From thereon, air pollution crises are to be handled with care due to its blame-generating features. Saliency, proximity, and the political connotation of atmospheric pollution are part of the sectorial air quality policy paradigm under which interactions take place, leading to blame avoidance dynamics.

4.3.1.1 How does crisis control work? Who is to blame?

Once the worst was over and with pollution levels relatively stable, air quality policy interactions focused on the *Environmental Contingency Program*, a protocol devoted to crisis prevention and control. The program activates when atmospheric pollution reaches health-threatening levels and sets off diverse measures to lower them. Its purpose is to take pollution concentrations back to the health-safety standards set by the federal government through the Secretary of Health and the Secretary of Environment and Natural Resources. Depending on the levels, the program can reach different phases, each one with differentiated measures comprising partial or total shutdown of industrial activity, stricter driving restrictions and, if the levels become even more dangerous, the population is advised to stay indoors and avoid any kind of outside activity (CDMX, 2019b).

The program connects four policy instruments: regulations and standards, the air quality index, and driving restrictions; whose competences are distributed among the two government levels (see Table 4.1). They all interact as follows. The protocol activates when the Air Quality Index goes over certain thresholds on the so-called criteria pollutants, defined by the federally issued Mexican Official Norms or NOMs.⁵⁷ The index's methodology is set through a local norm, paired to federal regulations (NOMs) that determine the health-damaging threshold of pollutant concentrations.⁵⁸ The following action is to set driving restrictions to take pollution concentrations back to the federal government's health-safety standards (CDMX, 2019b).

⁵⁷ See footnote 49.

⁵⁸ Depending on the subject, different sectors from the federal government come into play when elaborating any NOM. They are supposed to follow consultation forums with other actors and levels of government involved (Federal Law of Metrology and Standardization, 2014). On air quality issues, the norms are jointly elaborated by the Secretary of Environment and Natural Resources, the Secretary of Economy and the Secretary of Health. They

Actions to reduce atmospheric pollution focus mainly on transport because it contributes with the largest share to generate the main air pollutants: it is responsible for 86% of nitrous oxide and carbon monoxide emissions and more than 50% of both, PM_{2.5} and PM₁₀ emissions (CDMX, 2016). The emphasis on transport makes driving restrictions the main targets of contingencies through the Vehicle Verification and “No driving day” programs. The former implies controls to make sure that vehicle emissions stick to the standards previously set by federal regulations (NOMs) and is jointly implemented by the local authorities and the federal government through the Secretary of Communications and Transports (concerning the freight transport). In the case of “No driving day”, vehicles are issued a sticker in one of five colors, representing the weekday they are not supposed to ride. Since 1996 the verification program is coupled to “No driving day” (Gakenheimer et al., 2002). This means that depending on the vehicle’s characteristics such as the year-model and the emission range (identified by a numbering system placed on hologram-stickers), it can obtain a free pass to drive the whole week (exempt “No driving day” restrictions) and sometimes even during environmental contingencies.⁵⁹ In consequence, older, more polluting cars are the ones that historically have faced more restrictions.

The proximity, saliency and political connotation of pollution peaks raises the public’s awareness, turning them into blameworthy events (Hood, 2011). Therefore, activating environmental contingencies equals the presence of health threatening pollution levels and the unwanted driving restrictions. Put it differently, avoiding the protocol’s activation will nullify its blame-generating effects for all the involved actors. The interrelation of policy instruments means that each government level shares a part of such blame and has something at stake if or when contingencies are initiated. Mexico City’s government is the principal blame taker because its citizens see their health threatened and suffer from the driving restrictions. Citizens from Estado de México share a similar concern: they suffer the consequences of driving restrictions not only in their territory but also in entering the city. The same applies for federally regulated freight transport if it cannot run through the city, directing their complaints to the Secretary of Communications and Transports (as evidenced below).

regulate the auto industry on engine’s emissions, the permissible thresholds of health damaging pollution levels and the standards, procedures and emission limits that must be observed in vehicle inspection centers.

⁵⁹ The most polluting vehicles got the “hologram 2” which meant that they would have driving restrictions twice a week. “Hologram 1” meant driving restrictions once every week. “Hologram 0” exempted vehicles from restrictions. Later, on 2001, the “hologram 00” was introduced. That meant that they would have all the advantages of hologram 0 plus skipping the verification process for two years.

Table 4.1 Policy instruments related to environmental contingencies

Name	Type	Attribution	Characteristics	Role in contingencies
ICA- Air Quality Index (formerly IMECA)	Informational	Mexico City, in charge of calculations. Federal and local governments define thresholds.	Daily information on the pollution levels and threshold for triggering contingencies	Policy trigger
Pollutant concentration standards: NOM-020-SSA1-2014 (previously NOM-020-SSA1-1993) NOM-025-SSA1-2014 (previously NOM-025-SSA1-1993)	Regulation	Federal Secretary of Health in consultation with other actors	Sets the maximum thresholds for dangerous pollutants concentrations	Sets the index standards (trigger's trigger)
Vehicle emission limits NOM-041-SEMARNAT-2015 (previously NOM-041-SEMARNAT-1993 and NOM-041-SEMARNAT-2006)	Regulation	Federal Secretary of Environment and Natural Resources in consultation with other actors	Defines vehicle emission limit criteria (Substituted in 2017 by the NOM-167-SEMARNAT-2017)	Set standards for the verifications program.
Driving Restrictions <i>No Driving Day</i> program	Restrictions	Mexico City and Estado de Mexico.	Driving restrictions	Restrictions depend on inspections.
Technical controls <i>Vehicle Verifications Program</i>	Regulation	Mexico City, Estado de México, and federal government (for freight transport)	Regulation checkouts through vehicle inspections	Defines whether vehicles are subject to restrictions depending on the engine's conditions.

Source: Own elaboration.

The structure of competences on a blame generating event, where all the involved actors have something at stake, turns all of them into potential blame takers. The next section shows how this “shared blame” motivated a joint strategy to adjust policy instruments and avoid the protocol’s activation. As sociological institutions, instruments have structuring capacities that reveal particular politics-society relationships by carrying different meanings and representations (Lascoumes & Le Galès, 2007; Voß & Simons, 2014). In this case, the analysis

of the instrumentation of crisis control protocols reveals how actors mobilized policy instruments to prevent pollution peaks and avoid the blame coming with them.

4.3.2 Policy instruments and blame avoidance motivated coordination

Once the worst days of the end 80s-mid 90s pollution crisis were over, the aim was to cope with pollution outbreaks. For that purpose, the federal government and the governments from Mexico City and Estado de México developed a joint blame avoidance strategy to prevent the environmental contingencies. According to Christopher Hood (2002, 2011), these type of tactics are divided into three categories: presentational, using arguments to “deal with loss or harm perception dimension of blame” (2011, p. 17), agency, by selecting institutional arrangements to distribute responsibility, and policy choices to minimize the risk of being blamed. Hood (2011) argues that agency and policy strategies are mostly used to anticipate blame, while presentational strategies can be adopted either before or after “blame firestorms.” Being blame anticipation the main objective, the governments developed a policy strategy complemented by an agency strategy. During this sequence they adjusted instruments in such a way that they could prevent pollution outbreaks and avoid the blame coming with it. Later, they changed the Commission’s structure to dilute blame. During the third sequence, characterized by coordination break-ups and conflict, the actors used presentational strategies.

The policy strategy consisted of manipulating two indicators (standards and pollution index) to avoid pollution peaks. Consequently, two other crisis-control instruments – regulations on vehicle inspections and driving restrictions -helped to maintain stability. The main purpose was to adjust policy instruments to avoid pollution peaks without strengthening unpopular restrictions. The fact that attributions on air quality policy instruments are distributed among the levels of government and the three major political parties share political power, defined the governance arrangements that made possible to coordinate and control crisis.

4.3.2.1 *Manipulating the policy triggers*

The first step of the crisis-prevention strategy was to manipulate the air quality index to prevent the activation of the contingencies program. ICA, in this case, worked as the “policy trigger”, defined by Kent Weaver (1989) as quantitative indicator used to mandate automatic governmental responses that can be manipulated and adjusted to reduce blame-generating pressures. The pollution index is represented on a 0 to 500 scale, in which 100 is assigned to the limit of health-damaging emissions determined by the federal standards. Less than 100 points is considered low risk or “normal” and when it goes over 100, it implies health hazards

(SEMARNAT, n.d.). If contingencies were triggered as soon as the indicator goes over 100, the figures presented in graph 4.1 (page 102) would be the same number of days of pollution peaks. Even with 150 points as a threshold, the average would be around 50 contingency days per year. As shown on graph 4.6, the breaking point to activate environmental contingencies has periods of stagnation and some others of incremental decrease. Keeping higher levels and its eventual reduction resulted from the negotiations among the local and federal authorities. A high-level public officer who worked on the General Direction of Ecology in Mexico City recalls that contingencies stopped because the triggers remained high and were not adjusted during a long time,

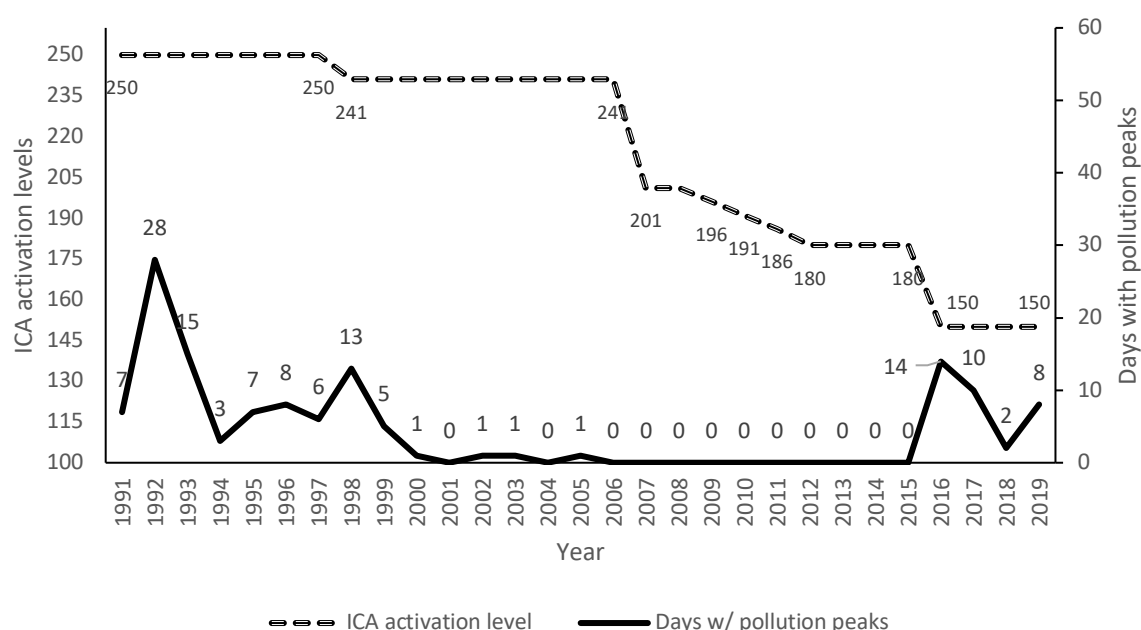
“These thresholds have always a negotiation margin because they are based on standards or norms that have a scientific base, but that are the ultimate goal or at least a mid-term aspiration. Certain protection margins are set and what really happened is that such levels didn’t move or moved just a little bit. That’s why contingencies stopped... The pollution levels were so high that the city couldn’t be paralyzed all the time. Therefore, the contingency [pollution index] levels were fixated relatively high. The problem is that they stood that way, nobody adjusted them” (Interview 33).

Eventually, the authorities decided to lower systematically the levels and avoid having the city “paralyzed all the time” to use the above quote wording. The 2002-2010 Program to improve the air quality in the Metropolitan Area of Mexico (PROAIRE 2) sets as one of its goals to update the application levels of the Environmental Contingency Program. For that purpose, “the Secretary of Health, in coordination with the Secretary of Environment and Natural Resources, the Secretary of Environment of Mexico City and the Secretary of Ecology of Estado de México should carry out the necessary analyses to update the Program activation levels” (CAM, 2002, p. 8.113). As Graph 4.6 shows they decided to decrease the index by five points per year in the period 2008-2012. According to a former local officer from Estado de Mexico, the reason to set this target was merely related to negotiation between the Commission members,

“They were five points each year. Always the negotiation between two governments is complex. They always have different points of view. The heads of the [local] executive do not only see the environmental part of the issue, but also the economic sustainability and development, of growth of a metropolitan...where a lot of things have to be evaluated” (Interview 13)

Not only did the commission members decided to decrease gradually the levels, but they set a goal for 5 points each year. The target could have been to reach the WHO air quality standards or another type of benchmark. However, the rationale was not scientific and rather a political calculation of the costs of activating the contingency protocol, which would send the message that the city was polluted, plus the unpopular driving restrictions coming with it. The same logic applies for the federally defined standards setting pollutant emission limits and to which ICA's calculations are tied to.

Graph 4.6 Number of days with pollution peaks and ICA activation levels



Source: Own elaboration with information from Mexico City's government.

Just as the index, the federal standards dictating the health-threatening emission thresholds remained barely touched for many years. Regulations for ozone and particulate matter concentrations were first issued in 1994 (NOM-020-SSA1-1993 and NOM-025-SSA1-1993) and updated 20 years later, in 2014 (NOM-020-SSA1-2014 and NOM-025-SSA1-2014).⁶⁰ Its modification has been a longtime claim by the NGOs and academia. Despite the update, they consider that the levels are still not ideal and far from international standards (OCCA, 2019, Interviews 30 and 34).⁶¹ These regulations were steady for many years because moving them

⁶⁰ The NOM was revised in 2002 with minor changes, none of which modified the maximum concentrations for ozone or particulate matter. Ozone concentrations were set in 1993 to .110 parts per million/hr and in 2014 they were set in .095 parts per million/hr. In the case of particulate matter: PM10 from 120 mg/m³ to 75 mg/m³; PM 2.5: from 65 mg/m³ to 45 mg/m³. Parts per million/hr and mg/m³ are measures of the concentration of pollutants either in a determined time lapse (for ozone) or air volume (for particulate matter).

⁶¹ As portrayed below, the change in the pollutant concentration norm (NOM-020-SSA-2014) played an important role in the 2016 comeback of pollution outbreaks.

would imply more contingencies. A high-level public officer that worked at the federal government recalls that around the year 2000, “they [the commission members] grabbed a table and said: “if we put the levels here, how many contingencies we’ll have?”. There were minor, gradual adjustments but always below the scientific recommendations” (Interview 38).

Just as previous studies indicate (Davis, 2008), tightening regulations would probably lead to more contingencies, causing generalized social unrest and ultimately affect public opinion. According to the above quoted public officer, that was the motivation to keep loose standards,

“There has been resistance to have stricter standards [Mexican Official Norms] ... with such standard everybody was happy, then they saw that they had some impacts at some level so, what do they do, they loosen the standard! We had resistances and setbacks in many cases. Why? It’s logic, everything is associated with the contingencies issue because for the [mass] public’s mind “there is a contingency! we’re polluted!”. It has always been a contentious issue” (Interview 38).

The fonctionnaire’s comments display air quality policy’s blame avoidance features. They reveal the domain’s logics linked to a popular perception of pollution harms and what the activation of the environmental contingencies meant for the city’s inhabitants. To avoid crisis, the commission members – Mexico City, EDOMEX and the federal government – adjusted the triggers because that would create social unrest. They did know well that with a high activation ICA threshold tied to loose standards, the risk of having a pollution peak decreased.

4.3.2.2 Relying on restrictions for stability

Vehicle emission controls are local and federal procedures tied to federal regulations.⁶² The national Secretary of Environment and Natural Resources sets the vehicle emission limits through the NOM-041-SEMARNAT-2015. Local and federal authorities use the regulation as guidelines during the inspection processes of particular vehicles (local attribution) and freight transport (federal attribution through the Secretary of Communications and Transports). The

⁶² The General Law for Ecologic Equilibrium and Environmental Protection (LGEEPA) differentiate between mobile and fixed pollution sources. They can be either of federal or local jurisdiction. Fixed sources of federal jurisdiction are the following industries: chemical, oil, paint, inks, automobile, cellulose and paper, metallurgy, glass, electric energy generation, asbestos, cement, dangerous waste management. The mobile sources of federal jurisdiction are the freight transports that have license plates issued by the Secretary of Communications and Transports. Local jurisdiction fixed sources of pollution are industrial, commercial, and service establishments not comprised as federal jurisdiction sources. Mobile sources of local jurisdiction are motorized vehicles with license plates issued by local authorities.

federal government established the regulation in 1999, and it updated it twice (in 2007 and 2015) without significant changes in pollutant limits.⁶³ For instance, until the 2015 update, it didn't consider nitrous oxides – one of the most dangerous pollutants (see footnote 49). Why? Stricter inspection standards take more cars out of daily circulation due to Vehicle Verifications and No Driving Day coupling. In other words, vehicles failing to meet the standards are not allowed to drive one weekday (in some cases during the weekends) and face tighter restrictions during environmental contingencies. Therefore, instead of assuming the cost of unpopular driving restrictions – because stricter inspection standards would take out more cars of daily circulation – the governments chose to rely on new technology.

In consequence, the authorities bet on the engine efficiency of newer cars and gave fleet renewal incentives. For instance, no matter their emission levels, cars of more than eight years old were automatically discarded to get a free pass on the “No driving day”. In second place, the National Institute of Ecology and the Secretary of Environment of Mexico City agreed jointly to give new cars equipped with EPA '94 technology a two-year exemption on inspections by creating a new category (the “00” hologram sticker) (Gakenheimer et al., 2002; Interview 38). At that time, vehicles had to be inspected every 6 months, thus the new category was a good incentive for buyers to look out for the 2-year exemption.

Coupling verifications and driving restrictions had two immediate effects: it banned old vehicles to drive once a week and rewarded the more efficient ones. Newer cars meeting EPA '94 regulations wouldn't have to go to the mandatory inspections of the verifications program for two years and could run uninterruptedly without submitting them to any kind of control in that time lapse. That way, vehicle inspection standards didn't have to be changed that much because they relied on newer, more efficient engines and at the same time older vehicles were automatically discarded. Actions like these in fact encouraged the city's fleet renewal (OECD, 2015).

4.3.2.3 *The context*

All these adjustments took place in a context of political transformation with up to three different parties ruling Mexico City (PRD), EDOMEX (PRI) and the Federal Government (PAN) (see chapter 2). Despite the context of political diversity, policy experienced no

⁶³ The following regulations were published in the Official Journal: NOM-041-SEMARNAT-1993 published on August 6, 1999, NOM-041-SEMARNAT-2006 published on July 2, 2007 and NOM-041-SEMARNAT-2015 published on June 10, 2015. After the 2016 crises, the regulations were reissued for the Metropolitan Area of Mexico City: NOM-EM-167-SEMARNAT-2016 and NOM-167-SEMARNAT-2017. See also footnote 15.

considerable disagreements or turnarounds for many years. Federal and local environmental sectors rather cooperated and shared a common view of the problem as the above example shows. That was not necessarily the case in other arenas. For example, during Andres Manuel López Obrador term as mayor (2000-2006), the National Action Party promoted an impeachment procedure that was backed up by the then President, Vicente Fox. Interactions within the Metropolitan Environmental Commission followed the cooperative trend due to the stability of pollution events. Whenever the actors got together, meetings were mostly to handle contingency-related issues. A former local public officer from Estado de México that worked on the Commission in 2011 recalls,

“The relationship was good regarding contingencies, there wasn’t a coordination problem, the ones that got there [in the Commission] were with full disposition to cooperate... The elaboration of IMECA [the pollution index] was barely touched, there wasn’t really much to discuss because for a lot of time, the air quality was stable, there weren’t such big crisis that we later had. Everything was calm. Even the verifications program, we both had common understanding” (Interview 16).

Public authorities from different political parties coordinated because they were making a long-term investment (see Jacobs, 2016). The main objective was to control pollution peaks in the long run by reducing the chances of getting them back. How this happened? Competences on policy instruments distributed power evenly among the involved governments, engaging them into a long-term commitment to avoid future crises and blame. In this way, the defining elements of this coordination sequence were competences on policy instruments, combined with the problem legacies (proximity, saliency and political connotation). In sum, the distribution of attributions and blame avoidance features structured interactions, leading to the recognition of the mutual dependencies to avoid pollution peaks.

4.4 Power realignments and coordination break-ups

Upcoming 2012 elections altered the balance of power and transformed the coordination scene leading to another sequence. Mexico City and Estado de México remained politically unchanged (in hands of PRD and PRI, respectively) while the federal government shifted hands from the National Action Party to, once again, the PRI. Such readjustments had two effects on the course of the interactions. One was related to the changes in the structure of the Commission to re-gain federal policy control and turn it into a blame-avoidance organization. The other outcome was a disequilibrating move from the National Action Party. Previous blame-

avoidance-motivated arrangements changed when the PAN went out of the ruling coalition and triggered an event that would destabilize the previously adjusted policy instruments, bringing pollution peaks back in. The longstanding stability on the policy was to be threatened, ending up the coordination streak and leading to conflict instead.

4.4.1 A new set of strategic interactions: re-centralizing policy?

The incoming federal government sought to regain air quality policy's control by changing the structure of the Metropolitan Environmental Commission into a reorganized and more institutionalized *Environmental Commission of the Megalopolis* (commonly known as CAME). It was supposed to overcome the institutional flaws of the former commission in terms of resources (personnel and funding) and to ensure impartiality in the conduction of environmental policy (Mexican Government, 2013). Instead, the new organization serves as a blame-avoidance buffer and a political instrument for policy control.

The reformed Commission has a structure of its own, and while formally it is politically neutral, it is actually captured by the federal government, which controls the head of the organization and its main funding sources. The executive coordinator heading the commission is appointed by and accountable to a board composed by the governors of the seven states of the Megalopolis⁶⁴ and the Secretary of Environment and Natural Resources. However, the *Coordination Agreement to create the Commission* (2013) allocates the Secretary the obligation to cover the staff's salaries (included the executive coordinator), and the States are fund the reactivated environmental trust-fund (F1490).⁶⁵ However, the fund's operational rules give the federal Secretary the power to dispose of the money (CAME, 2014). In short, the Federal government is in charge of the staff and the trust fund's operation, which means that even if the organization is supposed to formally provide an even participation for all its members, the fact that SEMARNAT covers the staff salaries poses risks to its neutrality.

Facing a latent takeover from the federal government, the executive coordinator's impartiality is the Commission's last stand for two things: to ensure an even treatment to all the members, and to look up for a metropolitan reach of the trust-fund projects for which the position enjoys substantial discretion. The coordinator is the filter to decide which projects to evaluate, which in turn increase the chances of their approval (CAME, 2014; CAME, n.d.). An impartial

⁶⁴ Mexico City and the States of Mexico, Hidalgo, Morelos, Tlaxcala, Puebla and the last one to join was Querétaro.

⁶⁵ Funding comes from the vehicle inspection fees: each state is committed to give out 5 pesos of each verification procedure.

coordinator will ensure a distribution of projects based on the metropolitan needs; an opposite scenario could lean the balance towards one of the actors.

In its takeoff, the Commission was seen as capable to handle coordination issues on air quality governance. This was mainly due to the first coordinator's profile, Francisco Barnés. He is perceived as highly technical specialist with a long trajectory on environmental affairs and close collaborator to Nobel Prize winner Mario Molina, one of the main personalities in air quality policy in Mexico City.⁶⁶ However, two hindrances out of the Commission's institutional design led to his resignation. First, the decisions taken at the governing board have no enforcement procedures to ensure its compliance and are not legally binding. Everything is based on the governments' good will due to the States constitutional autonomy in the Mexican federal system. Second, the Commission has no operative budget. The organization depends on the wages paid by the Secretary of Environment and Natural Resources (Mexican Government, 2013) and the office space provided by either the Secretary or one of the States, but no other expenses are covered. Nowadays, the commission's offices are inside the SEMARNAT building. In sum, with no enforcement capacity and without any operational budget (other than the salaries), the functions were very difficult to fulfill.⁶⁷ Plus, if the federal government provides the means for day-to-day operations, then the organization's neutrality is compromised. This is how former commission employees perceived the organization,

“Theoretically there is (an involvement of all the participants) but at the end “he who pays the piper calls the tune”. So, if in the end the one who has the final decision over the resources is the federation, most of the times the entities had to follow its guidelines” (Interview 14).

As former employees, their words could come out of resentment. However, a closer look to Barnés' successor, seems to prove them right. Martín Gutiérrez, an environmental lawyer with ties to the federal Secretary of Environment, Juan José Guerra Abud, replaced Barnés.⁶⁸ The executive coordination identifies Gutiérrez as apolitical/neutral, making constant references to his background as former member of the NGO community (Interview 3), whereas other actors from Mexico City's government and the NGO sector think of him as politically committed

⁶⁶ Barnés has a long trajectory in environmental issues (President of the INE, General Director of INECC, McKinsey Consultant) and the community perceived him and his team to be “neutral”, without any political affiliation (Interviews 15, 16, 34 and 38).

⁶⁷ According to some of his former colleagues and NGO's representatives that worked close to him, Barnés resigned because CAME didn't have neither operational budget nor enforcement capacity.

⁶⁸ Secretary Guerra Abud left the office in august 2015 and was substituted by Rafael Pachiano till the end of President Peña Nieto's term, in 2018.

with the federal government (Interview 38, 24 and 15). What is true is that before coming to the Commission, he already worked for the federal government by Guerra Abud's invitation.⁶⁹ His designation and the consequent relocation of the Commission's headquarters was perceived as the final blow by the Federal Government to gain control over the issue (Interviews 38 and 14). Interviewed officers from diverse positions agree on the federal government's control over the commission, even those working at SEMARNAT. For instance, a former top-level federal officer and currently member of the commission's scientific advisory committee considers the organization is not a neutral ground anymore, aligned to SEMARNAT,

“For two and a half years now [since the arrival of Martín Gutiérrez], it has been clear that the agenda, the management, everything from CAME [Commission], which in theory is a neutral ground, everything was aligned with Pachiano [The Secretary of Environment and Natural Resources, 2015-2018]. For many reasons we needed a truly independent organization, which at the beginning was a process that generated its own technical capabilities; but then it stopped” (Interview 38).

Even the federal Secretary's employees consider the commission as part of its structure and the trust fund “owners”. The following quote from a high-level fonctionnaire of the Secretary of Environment and Natural Resources summarizes such position,

“[T]he CAME [Commission] manager belongs to SEMARNAT [Secretary of Environment and Natural Resources], so we, as SEMARNAT by no means try to impose our authority. We're the ones that manage the trust-fund and put on the table all the information that we have at the federal level so better decisions can be taken. We are a coordinating organization but that also share information to the different actors so we can take better decisions to have a better policy and we all do everything we have to” (Interview 31).

All this has evident operational consequences. The executive coordinator controls two very important incertitude areas “à la Crozier” (2010) that lean the balance of power towards the federal government: funding and information flows. For instance, the federal government has

⁶⁹ He is the former director of the NGO PRONATURA (in charge of the preservation of diversity) and met Juan José Guerra Abud, the then head of SEMARNAT, during the transition period in between outgoing and incoming federal government (Contreras, 2016, April 24). As General Director of PRONATURA Gutiérrez was part of the Council of the National Commission for Protected Natural Areas (CONANP) where Guerra Abud (as head of SEMARNAT) was the Chair. Martín Gutiérrez then left PRONATURA to become General Director of Regional Operation of CONANP.

more power to decide on the allocation of the fund's money. Former members of the commission and from the scientific advisory body share the perception that the project allocation is not really impartial neither aligned to a metropolitan outreach,

“So far it's a little bit obscure how CAME distributes the resources of the trust fund. It's not very clear to me the transparency on the distribution of such funds” (Interview 8).

“The trust fund didn't work because its rules were poorly designed and at the end it's a money bag where some people propose projects and others [in reference to the Commission's coordinator] decide” (Interview 16)

They both agree regarding the institutional problems related to the fund's operation and how, according to them, the federal government holds total control of the resources. With an uneven power distribution within the commission, the other actors have no influence. In other words, the central control hinders the possibility of forging interdependencies between all the members. This is also evident with information exchanges. The executive coordinator has the formal competence to concentrate the information from all the State governments with the aim to provide a wider view of the problem at a metropolitan level (Mexican Government, 2013). A former commission officer indicates that the change from Barnés to Gutiérrez altered the local perception of the commission's operation,

“When we started, we were more or less recognized on our field... there were many collaborations. For example, Mexico City and Estado de México advanced in some projects. But then, when it's [the Commission] absorbed by SEMARNAT, although symbolically, then the collaboration stopped. In the moment SEMARNAT brings CAME into its offices, then it's not seen as an independent body anymore and I think it makes the organization to lose legitimacy because at the end, SEMARNAT or the federal government is represented by a [political] party” (Interview 15).

Again, these could be words out of resentment. However, local authorities share this view. According to the personnel from the General Direction for Air Quality at the Secretary of Environment of Mexico City, central control hinders information flows and is used discretionally. They claim that instead of asking Estado de México for their data as they did before, now they must go through the Commission and then ask them to share the information (Interview 18). They indicate that it was not the case with the former Metropolitan

Commission, because the agreements were only between the two entities, without intermediaries (Interviews 18 and 21),

“I think that when this CAME [Commission] comes in, they try to centralize everything to keep everything in their hands and it’s more bureaucratic... CAME indicates that everything has to go through them. Before, I asked Estado de México for their industry database, and now CAME concentrates everything... With the CAM [the first Commission] it was easier” (Interview 18).

When asked about the commission’s role in information exchanges, the executive coordination’s position is that they facilitate information flows because they distribute it to all the actors. Whenever they don’t is because the States didn’t give their consent,

“I have all the verifications databases... I have all the emission inventories; we even improve them. They really use us a lot for that [share information]. There’s an important information flow... There is a protocol in which if Mexico City gives me some information and Estado de México asks for it, I cannot transfer it without its consent, and that is a signed agreement” (Interview 3).

Then again, just as if the organization was conceived as a means to create conflict, local public officers and members of the Commission’s advisory board complain that the Commission gives a political use to the information, using it as its will and trying to control the discourse and orient public opinion (Interviews 15, 16 and 21),

“They [Commission] use the information they get only to present it to the Federal Government and never comes back to the entity... We have been working for months in a repository of vehicle inspections data... CAME gets it, they make some graphs and present it... The first one to have such information is SEMARNAT and they have used the information against the entities, misused” (Interview 21).

Rather than revealing the absolute truth, the portrayed views show that changes in the commission’s structure seem to jeopardize the once cooperative interactions that previously took place. The central control hinders the perception of the mutual dependencies. There is still one question remaining: if the “new” commission controls the money and the information flows, hindering coordination, what is its *raison d’être*? CAME was created under a cooperation agreement so any of its parts can decide to leave at any time, with no formal consequences. If the local Secretary of Environment claims that the renewed structure hampers the interactions and brings difficulties to its day-to-day operation, why don’t they leave? There

are two explanations: first, because actually the Commission provides a forum for its members to discuss their issues. For better or for worse, whenever they have any sessions, it opens a space for the members to place issues in the metropolitan agenda. Despite its institutional flaws, CAME is a space of debate and negotiation.

Yet, more important, the Commission reforms turned it into a blame avoidance instrument. The new statutes give the executive coordinator the competence to initiate the environmental contingency protocols during pollution peaks, and to absorb the blame that comes with it. In this case, the fuzzy and ambiguous structure of the organization – staff paid by the Secretary, without a fixed location, with institutional weaknesses and captured by the Federal Government – plays in favor of all its members. The fact that the Commission depends on everyone and on no one places the blame in the figure of the coordinator without pointing directly to any of the involved governments. A former directive from the Commission explains its *raison d'être*,

“In 2013 the Secretary of Environment and Natural Resources saw that air quality was turning into a political issue...therefore they tried to dilute the responsibility and created the CAME. The issue of environmental contingencies was really what motivated it [its creation] because contingencies imply driving restrictions and the people is not very happy with it...[I]f the CAME is to blame, that is somewhat ambiguous and the CAME has someone heading it, then the blame goes to the head, but he really has nothing to do with it. There was always some confusion if [the composition of] CAME was just the executive coordination or if it was the board of governors. It is an ambiguity that helps to remove blame” (Interview 8).

Functionaries from the Secretary of Communications and Transports share this opinion. They consider Martin Gutierrez to be “politically skillful to take a hit” (Interviews 29 & 30). What is more interesting is that even the very same executive coordination thinks of the commission as a “political buffer”,

“What’s the use of the CAME even if it is not recognized as a legal entity, [because it is formally part of the Secretary of Environment and Natural Resources]? As a political buffer. When we declare a contingency episode, we’re the one to blame. It’s not Mancera [Mexico City’s Mayor, 2012-2018], it’s not Eruviel [Estado de Mexico’s governor, 2012-2018]” (Interview 3).

Despite its lack of recognition as a legal entity and being centrally controlled, the commission has a use for all its members as an agency strategy of blame avoidance. The next section shows the strategy in action.

4.4.1.1 Crises are coming back to town. The final blow to the coordination arrangements.

After many years of stable, far-from-ideal, air quality conditions, a pollution peak shook again Mexico City in 2016. Unlike previous outbreaks, the increase in pollution levels had a political component due to contextual changes. With nothing at stake after losing the 2012 presidential elections, in 2014, the PAN's local branch pointed to the unconstitutionality of the Verifications program clause that automatically discarded eight-year-old cars' eligibility to skip driving restrictions (due to its coupling with the No Driving Day program). The party argued that the criteria was discriminatory because it should not be related to the car's year/model but to their pollutant emissions levels. PAN even provided legal assistance to individuals who wanted to submit a legal recourse and exempt the driving restrictions (Notimex 2014).

National Action Party's claims escalated to the Supreme Court of Justice that in 2015 declared unconstitutional to ban vehicles from circulation based on their year-model and not on their emission levels (Tesis: 2a./J. 125/2015 (10a.), Registry: 2010225). The Court's pronouncement didn't intend to automatically modify the verifications program; rather, it just provided car users with a legal recourse to contest the measure under a principle of equality. With such ruling any individual was free to claim for the exemption of the driving restriction.⁷⁰ Even if the Court's ruling didn't modify the program for all the citizens, Mexico City's government modified it to adopt this principle. Allegedly, Mayor Miguel Angel Mancera decided to remove the program's year-model criteria to compensate for an unpopular decision made in 2014 that imposed driving restrictions on Saturdays for older, polluting cars (those with hologram stickers 1 and 2) (Interview 15; Pantoja, 2015).

Removing the year-model restriction, combined with lax verification standards (NOM-041-SEMARNAT-2015), allowed old, polluting cars to run daily. Emissions from vehicles with more than 10 years are higher than newer ones and four to six times more polluting (Martínez Salgado, 2011). The local Secretary of Environment estimated that 650,000 more cars were in circulation (Pazos, 2016), while federal estimates accounted for 1.5 million (Rivera, 2016).

⁷⁰ Banning cars only based on the year-model was argued to be a discriminatory measure without a technical rationale.

Such modifications, combined with the 2014 update on pollutant concentration standards (NOM-020-SSA1-2014) and atypical meteorological conditions, created the perfect storm in early-2016. After ten years without a pollution peak, on March 14 monitoring stations reported more than 200 points in the pollution index (more than twice the health-threatening levels), activating the Environmental Contingency Program to be effective the next day. The longtime blame avoidance strategy used to contain the crises wasn't fruitful anymore.

Pollution episodes destabilized the previous arrangements, leading to blame allocation and conflicts. Envisaging the political hit on Mexico City, Mayor Mancera used a presentational strategy (Hood, 2011), highlighting that the city is “doing its job” and shouldn't be blamed for the high pollution levels or the driving restrictions. The mayor shifted the blame to the recently created CAME for “not doing enough” and just limiting itself to declare precautionary measures., even when they have the data that is provided by Mexico City's monitoring stations,

“Yesterday, we had contingency phase one. Why? Not necessarily because of Mexico City. That should be highlighted. Mexico City is doing its job. Here we have the *No Driving Day*. In the Megalopolitan Zone, we do not have it for all, just for some parts of Estado de México and Mexico City, but we do not have *No Driving Day* anywhere else, which is from where those gases come from, adding up to what is generated in the city. In other words, this contingency phase is not only Mexico City's responsibility. We have reiterated the call to the famous CAME, to this Megalopolitan Commission, that the only thing it has done in recent times is to announce that there is a pre-contingency, and that is because Mexico City has the monitoring stations. You might ask yourselves: how do we know that the [emission] levels are exceeding? Because Mexico City measures it. If we didn't measure, if we didn't have these monitoring stations, we wouldn't have contingencies because nobody has invested in it, nobody has cared over health issues” (Asegura Mancera que ayer no había mucha contaminación, 2016).

It seemed that CAME's membership was paying off. Mancera's description of the commission as “the famous CAME, to this Megalopolitan Commission” points to something that he's barely aware of, as is he doesn't know what its job is. He knows it very well, he was just using the commission for what it was precisely intended for, a blame avoidance organization. As mentioned before, by depending on and everyone and no one, the commission is the perfect culprit. Moreover, by indicating that “we do not have *No Driving Day* anywhere else, which

is from where those gases come from,” Mayor Mancera pointed out the other Megalopolis’ States and the Secretary of Communications and Transports for not doing enough to fight their emission sources. Blame allocation led to an energetic reaction from Estado de México’s governor, Eruviel Ávila. Through a blame deflecting response, the governor decided to close the State’s wastelands, historically used by Mexico City. It was his way of responding to Mayor Mancera’s declarations regarding “each one taking charge of its own affairs”,

“It is not a question of allocating blame; it is not a question of seeing who are more responsible than others. It is a question of being realistic, of acting responsibly, ethically; to figure out the entities [States] and municipalities’ share on the problem, but more important, to see how we can contribute to the solution of this environmental problem that belongs to all the entities of the Megalopolis... I want to tell you that the case of the Mexico City, for the authorities it has been easier to generate solid waste and deposit it in the neighbor's house, that is, in the State of Mexico, and that is why I respectfully and cordially demand that the environmental board of the megalopolis analyze the treatment of solid waste, because the State of Mexico can no longer receive those eight thousand tons of garbage from Mexico City every day” (Fernández, 2016).

Estado de México indeed closed the wastelands (Fernández, 2016) leading Mexico City to make an agreement with the State of Morelos (also member of CAME and of the same party as the city’s government) (Miranda, 2016). The conflict lasted only for two days, and the wastelands finally reopened. However, Ávila hit the city where it hurts. He sent a strong message that he would not take the blame for the crisis – as Mancera implied while trying to elude public blame. Mexico City’s mayor then tried to soften the situation. Two days after the outbreak, making an ambiguous declaration, Mexico City’s Mayor diluted the blame for the restrictions by acknowledging the collective decision-making between the Commission’s members. In other words, he blamed the commission for the restrictions and at the same time recognized the city’s role inside the organization, thus involved on the decision-making processes. During a radio interview, he indicated,

“The citizens have the perception that these contingencies only happen in Mexico City and that's not the case... When this decision is made, it is made by the Commission. Today we are in this vehicle restriction, it is a decision of the commission. It is supposed to be endorsed by all entities...The last time, when stricter driving restrictions were proposed, it was a decision made inside the CAME. You [addressing to the interviewer] might remember that Mexico City was pointed for that decision and it was

said that it was practically a decision of the head of the government... The main issue here is that people must be informed on the nature of the Commission, what is its function and who is in there...There is an organ where all the members endorse the decisions made there. We all signed [an agreement] to set stricter driving restrictions. Everything has to be agreed upon” (Radio Interview, Adela Micha, Imagen Radio, March 17, 2016).

Now, it was not that the city is the only one doing its job *vis à vis* the others. Mancera changed his mind to share the blame between all CAME’s members. While he is still elusive, he recognizes that decisions within the commission are agreed upon. However, conflict kept going in other fronts. Heavyweight carriers complained because they were not allowed to enter city during contingency episodes. To solve the issue, the Secretary of Communications and Transports negotiated an agreement with Mexico City and other states of the Megalopolis on transport inspections criteria. Public officers in charge of the negotiation recall,

“Everything begins with the contingencies of 2016 and the decision to implement the *No Driving Day* program to everyone... They [the carriers] had to make a line in the highway, standing around the whole day because that day we had the contingency for the vehicles coming from Nuevo León or San Luis Potosí [northern Mexican states]... Then, well, the challenge was how to explain [to Mexico City’s authorities] the logic and the way freight transport works; I mean, it’s not like anybody’s vehicle because you say, “Oops, I don’t drive today, I’ll take an Uber.” Fleets have their proper logistic supply chain, which is programmed several days in advance. Those are vehicles that run long distances. So, the way contingency program was defined, the protocol could be triggered “at the drop of a hat.” What do you do with a vehicle that is coming from a far-away state to Mexico City? That was the conflict: try to explain how freight transport works and why the contingencies program is not practical... local authorities understood that in the end, but it was a very complicated negotiation. It went well, but it was tough” (Interviews 28 and 29).

The conflict with federal-regulated transport arose due to the distribution of competences. The city has the power to restrict car circulation within its jurisdiction. During a pollution crisis, local authorities can deny the entry to vehicles considered to be polluting or to those that don’t meet locally issued standards. In this case, the uneven distribution of power led to conflict because the city has the sole attribution to set driving restrictions. Therefore, while facing conflict with transport carriers, federal authorities needed to negotiate with the city. Just like

the Estado de Mexico's case, the freight transport's conflict solved a few days later. What these examples show, however, are the conflictual and blame-generating effects of pollution outbreaks.

4.4.1.2 Taking things back to normal (or "centrally" normal?)

During the contingency, the president used the Commission to "save the day". He ordered the Secretary to call for an extraordinary Commission meeting to set a new, stricter norm on vehicle emission levels (Reséndiz, 2016; Reséndiz, et al, 2016). However, issuing official norms is an attribution reserved to the federal government via the Secretary of Environment and Natural Resources (Mexican Government, 2014) and do not necessarily have to call a Commission meeting for that aim. The federal Secretaries are legally bounded to create working groups whenever they intend to make a change on the Mexican Official Norms. However, as some of the interviewees recall, historically the federal government usually works unilaterally on that issue (Interviews 20, 21, 30, 34 and 38). Asking for a Commission's meeting was more a strategy to dilute the federal government's role on air quality. A member from the Mexican Center for Environmental Law (CEMDA) – a NGO part of the Commission's advisory council – identifies the standard update as a move through which the Secretary went ahead Mexico City's government to set up a crisis solution,

"With the 2016 crisis the standard was raised, although not as we wanted. And it really was thanks to SEMARNAT ...In the specific case of the 2016 pollution peaks, if you notice, it was Pachiano [the Secretary of Environment and Natural Resources] who issued the emergent norm. He got ahead of Mancera and... he said "here is the norm and you'll have to comply with it". That put some pressure for updating the vehicle inspections standards' [Mexican Official Norm]" (Interview 34).

This federal move was another attempt to re-centralize policy. With the reorganized commission, the federal government already controlled funding, information flows and now it got also in a position of demanding change in policy instruments. These factors evidence that central legacies remain. Instead of setting direct instructions to subnational governments – basically because the nature of the federal system doesn't allow that – the federal government incrementally got control of air quality policy in Mexico City, at least when it came to pollution peaks management.

The return of pollution episodes brought major changes in policy instruments. The federal government revised and tightened vehicle emission regulations and inspection standards to

take older cars out of circulation. The Secretary of Environment and Natural Resources issued first an “emergent regulation” in 2016 (NOM-EM-167-SEMARNAT-2016) and one year later released the final standard (NOM-167-SEMARNAT-2017). Norms on atmospheric pollutant concentrations remain unchanged. Lastly, the index thresholds for triggering environmental contingencies decreased by 30 points to be set at 150 (Graph 4.6). Now the city suffers from pollution crisis again and it’s not because the city is more polluted but because the triggering limits and the emission thresholds changed after this period.

Political changes of 2012 readjusted policy instruments contributing to the rise of pollution peaks in 2016. This led to conflict by destabilizing the longstanding crisis-management arrangements. As shown above, all the actors (Mexico City, Estado de México and the Federal Government) deployed strategic moves to avoid blame. Here, the once low-profile Commission reemerged with a prominent role as a political and blame avoidance instrument. The organization was also a means for the federal government to regain policy control, evidencing the persistent centralist legacies.

4.5 Conclusion

Politics is often considered as a major barrier to policy coordination (Hustedt & Danken, 2017; Peters, 2015b). In their study of inter-departmental committees, Hustedt and Danken (2017), argue that the prevalence of political logics in such organizations leads to conflict and ultimately deadlocks because political objectives offset policy outcomes. The dynamics portrayed in this chapter show that this is only partially true. Here, the conditions of the air quality problem internalized the reputational gains as the main policy goal. In contrast to Hustedt and Danken’s study, the case has shown that politics fostered coordination in the presence of political and institutional changes that defined the actors’ strategies. In short, there is, on the one hand, an underlying reputational logic that reveals certain predictability by framing actors’ motivations; and on the other hand, a contingent factor triggered by institutional and political changes. Among with centralist legacies, they defined the strategic interactions that orient coordination processes in air quality policy.

Initially, during the first coordination sequence, the longstanding regime’s practices required the president’s intervention to foster coordination between the involved sectors. Acknowledging that, the mayor acted strategically to get the President to instruct the sectors to perform as the Program demanded. That way, the city managed to decrease the alarming levels thanks to the actions of the Energy and Industry sectors. Interactions took another turn

when two critical junctures altered the process. First, a major structural change in 1996 brought more autonomy to the city, taking it away from the President's control. The second is related to political changes in the year 2000 when the PRI lost the presidency to the National Action Party.

Those changes ended up with the presidential hegemony and dispersed power. Institutional changes at the structural level and political alternation reoriented interactions without undermining coordination. Contrary to what the literature suggests, political dispersion didn't lead to coordination breakups. The dynamics generated by the problem's history explain the motivation to focus policy on crisis control rather than to decrease long-term exposure. Now it was not about coming out of the crisis but to manage stability and prevent those events to happen again. The outcome of this factor combination was a different type of coordination. Motivated by the blame-generating effects of the problem, the actors worked together in a strategy to prevent pollution peaks of happening again. They used their competences on policy instruments as their means for crisis control. The fact that all the involved governments shared attributions on the policy instruments of air quality policy made them responsible for any increase in pollution levels. Therefore, they used those competences to adjust instruments to prevent crises from happening again. Their strategy was only possible because the competences and political power was shared between the three major political parties. This situation lasted for more than 15 years, time during which the actors succeeded on preventing pollution peaks. Finally, political changes altered the balance of power making these arrangements to fall apart, leading to blame allocation and conflict, breaking up the previous coordination processes.

In the case presented here, institutional, and political changes altered the balance of power, re-orienting the conditions under which the interactions took place. However, the problem's saliency, proximity and history led to the development of a reputational factor within the air quality policy paradigm that underlies the motivations for coordination and later for conflict. This is for instance, explains the apparent paradox where blame avoidance was both, the reason behind coordination during T_2 and the conflict detonator after the 2016 events. Another cognitive factor, the centralist *référentiel*, was also determinant to understand the federal government's actions to steer the policy under partisan diversity.

Chapter 5. Political regulation and scale differences in air quality policy coordination in Paris

5.1 Introduction

In October 2019 the European Court of Justice (ECJ) issued a ruling to France for consistently exceeding the maximum limits of the pollutant nitrogen dioxide set by the Directive 2008/50/EC. The Court points out to Paris and eleven other regions where the standards were not met. This ruling is just the last of various procedures and warnings undertaken by the European Commission since 2010, denouncing the French State for not doing enough to meet the emission standards. As a response to the Commission's early warnings, the State accelerated the publication of the *Plan de Protection à l'Atmosphere* (PPA) for Île de France, recognized by the Court of Auditors of France as an insufficient tool set by the State to improve air quality (Cour des Comptes, 2015). According to the audit institution, the lack of a centralized monitoring system and of incentives for implementing local plans, renders them ineffective to meet the European standards. However, considering institutional design flaws alone falls short to explain the current situation in the Parisian region.

Following the critiques from the Court of Auditors of France to the PPA, it would seem that local levels won't engage in any actions to improve air quality unless the State steers and set incentives to implement some policy measures. However, since the mid 90's, the city of Paris has engaged in several actions leading to improve air quality, such as the decision to build the tramway (jointly implemented with the Region and the State but with the city in a leading role), the restriction of parking spots, promoting cycling, and road use transformation (Halpern & Le Galès, 2019; Zittoun, 2008). In some areas the atmospheric pollution has indeed showed a decrease (Font et al., 2019). Moreover, as the chapter later shows, the region and the city also coordinated for some time to develop air quality related actions (i.e. fostering public transport and demanding driving restrictions). Therefore, a closer look to the interactions between the actors of the Parisian region shows that the sole focus on the institutional design of a top-down instrument falls short to explain in a comprehensive manner policymaking and coordination processes leading to air quality policy failures and the non-compliance of European directives.

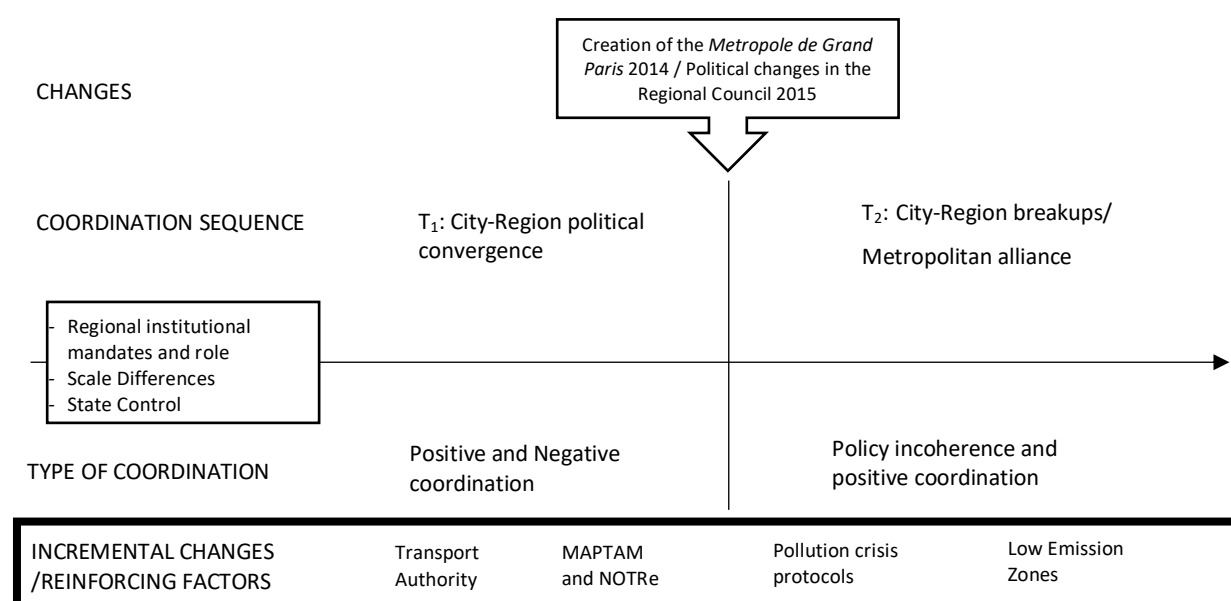
This chapter argues that air quality policy coordination processes in the Parisian region take place in a policy domain where institutionalized scale differences, regional institutional mandates and a *référentiel* of central control determine the actors' strategies in combination with institutional incremental changes that redistribute power through the re-allocation of

competences, creation of new institutions, and the generation of ambiguities. Consequently, political and institutional changes divide coordination processes in two sequences (see figure 5.1), affecting the interactions between the region, the city, and the *Métropole de Grand Paris*. During the first coordination sequence, the Socialist-Green coalitions in Paris (2001-2020) and Île de France (1998-2015) held a convergent approach to foster public transport and decrease the car-use, resulting in positive coordination.

Institutional and political changes in 2014 and 2015 altered the arrangements, leading to a second coordination sequence. The MAPTAM and NOTRe laws added up a government level by creating the *Métropole de Grand Paris*, challenging a longtime view of the region as the metropolitan scale. Moreover, the laws created institutional ambiguities by granting both with similar competences regarding the coordinator role. Additionally, the winning right-wing coalition in the 2015 elections headed by the republican Valérie Pécresse has an opposed problem view, against driving restrictions, fostering car-use and road construction. The region uses its direct competences on transport and narratives supported by its institutional mandate of territorial cohesion and institutional ambiguities to make prevail its policy approach, leading to conflicts with the city. Politics, in this case, regulates the interactions by either reconciling or antagonizing the actors' approach to the problem.

Whereas air quality policymaking is highly dominated by the city-region-metropolis interactions, governance arrangements comprise other actors, such as the State, metropolitan departments, and *communes*. However, coordination processes with these actors hardly stick to the sequences mentioned above. For instance, the State's role is two-faced: on the one hand, it has decentralized some competences on planning, transport and driving restrictions; on the other hand, the Police Prefect remains in control of pollution crises by defining when and if restrictions are to be implemented during an outbreak. This is product of the State's global *référentiel* to keep control of strategic affairs in the Parisian region. The other actors – metropolitan departments and communes – have a stand on their own regardless of their political orientation, mostly linked to their constituencies and scale differences. In sum, the interactions between these actors and the city, region and metropolis follow institutionalized patterns related to scale differences and cognitive references that have little to do with partisan politics.

Figure 5.1 Coordination sequences in air quality policy in Paris



Source: Own elaboration

The chapter develops the argument drawing on four case studies instead of a chronological division. This choice was made for methodological purposes considering practical and demonstrational reasons. In the first place, ordering the chapter in cases gives a clearer perspective of the interactions, making easier for the reader to follow the argument. Unlike the Mexican case, air quality policy is more atomized (many actors involved) and is not dominated by one single objective (such as pollution peaks). Therefore, a chronological order would need to refer constantly to the cases as examples which could lead to lose the focus. Each case, however, respects a chronological division. In second place, each case replicates the same dynamics and supports the argument, demonstrating the explanatory power of the framework. Table 5.1 summarizes the cases and the main dynamics.

Table 5.1 Interaction dynamics per case and coordination outcomes

Case	Main features	Coordination outcomes
City-region general interactions and planning	<ul style="list-style-type: none"> - Same problem definition between the city and the region under the Delanoë/Hidalgo-Huchon duo led to coordinative discourses. - Different problem view from the regional right-wing majority after 2015. - Increasing regional competences changed power distribution. It favored joint actions with the city and hampered coordination after 2015. 	<p>Positive coordination between socialist/green coalitions at both levels.</p> <p>Breakups and conflict after political changes.</p>
Pollution Peaks Management	<ul style="list-style-type: none"> - State retains control of driving restrictions (<i>référentiel</i> of central control and use of its competences → power) - Paris demands setting up driving restrictions during pollution crisis. - Depending on the sequence, the region favors or opposes to driving restrictions. <ul style="list-style-type: none"> o Uses narratives based on institutional mandates and institutional ambiguities to oppose to restrictions due to its problem view. o Has a formal, direct involvement by controlling public transport. Power distributed with the transfer of the Transport Authority. - Metropolitan communes and departments oppose to restrictions due to affectations to their constituencies (institutionalized scale differences). 	<p>Unilateral State actions according to its political preferences.</p> <p>Conflicts during pollution peaks between most of the actors in the Parisian region.</p>
Seine Riverbank roads affair	<ul style="list-style-type: none"> - Using local competences, the city decided to close the road Georges Pompidou with air quality arguments. - The region and the metropolitan communes opposed arguing that pollution displaced outside the city to other territories. <ul style="list-style-type: none"> o The region used institutional channels to oppose the measure (through the Courts). o Used a narrative based on its institutional mandate to preserve territorial cohesion and institutional ambiguities to support its intervention. o Communes opposed arguing affectations to their constituencies (scale differences). 	<p>Unilateral actions led to conflicts due to different problem views.</p> <p>Interferences from other actors.</p>
Low Emission Zones	<ul style="list-style-type: none"> - Institutional changes granted the mayors the competence to set driving restrictions to polluting cars (power distribution). - The city of Paris used the attribution to set stricter restrictions than those in other communes. - Metropolitan communes argue on the negative effects restrictions to their constituencies (scale differences) because they can't drive to the city. - The region uses a narrative based on its institutional mandate of preserving territorial cohesion and institutional ambiguities to support its intervention, highlight the inutility of the metropolis and attract the issue to its scale. - The <i>Grand Paris Métropole</i> negotiates to fulfill the city of Paris' interests and gain a powerful ally to counteract regional pressure. 	<p>Conflict between the city and the metropolitan <i>communes</i> that don't want to issue restrictions.</p> <p>Positive coordination between the city and the metropolis.</p>

5.2 Empowering the Region. The political regulation of the city-region relationships

Before the 1996 *Loi sur l'air et l'utilisation rationnelle de l'énergie* (LAURE) the *collectivités* had practically no formal attributions in air quality policy. However, as shown in Chapter 2, the lack of explicit competences was no obstacle for the involvement of the City and the Region. For instance, the Regional Council was an active proponent for the problem redefinition through the ERPURS project; in Paris, political conditions and crisis events exerted pressure on Mayor Tiberi (1995-2001) to act on the matter, setting the ground to more systematic efforts on sustainable mobility and air quality in the years to come. During his term he conceived the tramway project and developed other rather marginal measures related to bikeways and the confinement of bus-lanes (Halpern & Le Galès, 2019). The “new attributions” provided by LAURE had little to do with the problem reframing; nonetheless, LAURE became the starting point for a set of incremental institutional changes reshaping the governance arrangements.

The '96 *Loi sur l'air* granted the *collectivités* with planning attributions, a task once reserved exclusively for the State. As seen on Table 5.2, the law introduced the Regional Plans for Air Quality, the Urban Mobility Plans and the Plans for the Protection of the Atmosphere. Apart from the latter, the other two plans are co-elaborated by State and the Region with the participation of the City of Paris. For the State's Regional and Interdepartmental Direction for Environment, and Energy (DRIEE)⁷¹, this feature fostered an “equilibrium” by giving all actors a “place on the table”,

“Son élaboration (Regional Plans for Air Quality) est confiée au Préfet de Région, qui trouve là un rôle nouveau. Celui-ci arrête le plan après consultation du public, avis des organismes consultés (notamment des conseils généraux) et avis du conseil régional. La loi a jugé utile de préciser : « En région d'ile-de- France, le maire de Paris est associé à l'élaboration et à la révision du plan ». Le décret d'application précise quant à lui que la commission d'élaboration comprend « pour la région Ile-de-France, le préfet de police ou son représentant ». Toute précaution est explicitement prise pour que chacun des quatre acteurs que nous avons décrits trouve sa place, préservant l'équilibre global du système” (Fargette, 2000).

⁷¹ Since March 2021 the Regional and Interdepartmental Directions of Equipment and Planning (DRIEA) and of Environment and Energy (DRIEE) merged into the Regional and Interdepartmental Direction of Environment, Planning and Transport (DRIEAT).

Right after the law granted planning competences to the *collectivités*, the State had a rather mechanistic idea of the interactions with and between the subnational levels, where the institutions assuring information exchanges between the government levels would lead to coordination. Doing this, according to the above quote, would foster a systemic equilibrium, where all the actors had their place. If the city and the region developed air quality related measures before having any specific competences, what would ensure that their interactions remain under the limits imposed by the law? The answer is straightforward: nothing and they didn't.

For some time, the city-region relationships found the alleged “equilibrium” stated in the quote; however, the institutional “precautions” (also from the quote) taken to position each of the actors through planning, as intended by the State, had little to do with it. Through the '96 Law, the State acknowledged the importance of the subnational governments in the issue through planning without granting any other attribution or additional mechanisms to regulate their interactions, such as incentives for coordination or goal-compliance. In the absence of such means, the convergent approach between the City and the Region is explained by the political conditions that engaged them, for some time, into positive coordination.

5.2.1 Coordination under political animadversion

Bertrand Delanoë's alliance with the green party at the local level clinched a convergent view with the regional authority. For around fifteen years (2001-2015) the City of Paris and the Regional Île de France Council were both in hands of the Socialist Party with a strong green presence in both councils: Jean Paul Huchon (regional president from 1998-2015) shared terms with Bertrand Delanoë (from 2001-2014), and for a short period with Anne Hidalgo (from 2014-2015) (see figure 2.1 in the previous chapter). According to the City of Paris database (Paris Data, 2021), socialist councilmembers combined with a numerous presence of the Green Party in both councils. In the 2001 Parisian elections the *greens* won 25 seats in the Council, granting them the Deputy Majors of Transport (Denis Baupin) and Environment (Yves Contassot). A slight setback in the next elections got the *greens* only 9 seats, costing them the Deputy Mayor of Transport. At the regional level, following the 1998 elections the left coalition achieved a slight majority over the right-wing parties with 14 seats in hands of the greens. The landscape changed abruptly by the next two elections (2004 and 2010), when the socialist-led left outnumbered the right-wing coalitions. Similar to Paris, the greens presence increased considerably to 28 seats in 2004 and 51 in 2010. Such results granted them the Vice presidency of Environment, Sustainable Development and *éco Région* in 2004 and for the next

term they were in charge of both, the Vice presidency of Transports and Mobilities and that of Environment, Agriculture and Energy.⁷²

Despite some disputes and strong personal animosity between Delanoë and Huchon (De Ravinel, 2013; Interview 67), the composition of both councils led to a shared view on the issue, fostering planning coherence. During a deliberation in the Paris Council, Mayor Delanoë criticized the State-elaborated *Plan de Protection de l'Atmosphère* considering it to be insufficient and unambitious. While doing so, he evidenced the convergent views at both levels arguing that the State's plan opposed the main propositions set by the Region-led *Plan des Déplacements Urbains 2001* (urban mobility) and that the city's mobility plan would be fully integrated with the regional measures,

“L'impact de la circulation automobile sur la qualité de l'air n'est pas envisagé à sa juste mesure. En effet, le projet de PPA [Plan de Protection de l'Atmosphère] se base sur une projection d'augmentation du trafic de l'ordre de 10% d'ici 2010. Or le Plan de Déplacement Urbain d'Ile de France adopté au titre de la LAURE en décembre 2000, prévoit un ensemble de mesures, dont l'objectif global minimum est une réduction du trafic routier de 3% sur l'ensemble de la région (et 5% sur la zone dense)... Les objectifs fixés par le PDU en matière de réduction globale du trafic automobile à l'échelle régionale sont une priorité pour la santé publique : les occulter dans le PPA reviendrait à renoncer aux leviers essentiels de l'amélioration de la qualité de l'air. Pour ce qui concerne, la Ville de Paris a décidé d'établir un Plan de Déplacement de Paris (PDP), déclinaison parisienne du PDUIF, qui proposera des mesures qui s'inscrivent pleinement dans les objectifs du PDU francilien...” (Délibération/ Conseil municipal/ Mars 2005 [2005 DPJEV 26]).

In the quote Delanoë criticizes the incoherent view of the national and regional plans. He indicates that the region's mobility plan contemplates to reduce car traffic by 3% while the State's air quality plan considers an increase of 10%. By doing so, the mayor indicates that the city will follow the region's plan. Indeed, the socialist/green coalition at both levels secured air quality coherent views fostering integrated planning. A former Deputy Mayor of Paris

⁷² The appointees by year were the following : 2004- Cinquième vice-président, chargé de l'environnement, du développement durable et de l'éco Région : Michel Vampouille (Verts). 2010- 2e vice-président chargé des transports et des mobilités : Pierre Serne (EELV); 4e vice-présidente chargée de l'environnement, de l'agriculture et de l'énergie : Corinne Rufet (Europe Écologie) preceded before 2013 by Hélène Gassin (EELV).

(2001-2008) recalls that despite disagreements between both executives, the political conditions enabled staffs from both levels to carry out some “backstage” work,

“Ça se passait pas mal avec Huchon parce qu’il a été un des premiers à comprendre les questions environnementales et donc c’était assez facile, et comme il y avait un poids important des écologistes alors surtout un peu plus tard, mais quand même au sein de la région : le président d’Airparif était un élu régional écolo[giste] donc on pourrait travailler ensemble. Ce n’était pas très difficile mais en même temps c’était très séparés parce que Huchon et Delanoë se détestaient et donc ils n’arrivaient pas à travailler ensemble, donc il fallait passer par derrière avec les services des élus pour arriver travailler” (Interview 67).

While the former Deputy Mayor may overstate the ecologist presence as a sufficient condition for coordination, the fact is that mobility planning confirms the similar policy views. The Regional Urban Mobility Plan sought to limit car-use and rather widen sidewalks, to promote the use of collective transport and eventually the build-up and enlargement of bicycle paths (Deroubaix & Leheis, 2011). In the case of the city, the Paris Mobility Plan (2001-2005) set as its main objectives for 2005 to decrease car use by 5%, and instead to increase public transport users, incentivize walking and to double the bicycle travels (Ville de Paris, 2001).

Ongoing institutional changes altered the balance of power by granting the Region with more attributions on mobility, reinforcing the common approach. In 2000 the Region got some presence in the executive council of the State-controlled Regional Transport Authority (Syndicat des Transports d’Île de France-STIF, renamed in 2017 as Île de France Mobilités) and by 2004 the State retreated completely from the organization’s council, giving the Region total control of the organization.⁷³ With that change, the Urban Mobility Plan was now in full control of the Region (Région Île de France, 2013). These changes altered the balance of power, turning the Region in a more powerful actor in terms of resources and capacity. This had effects on positive coordination. Due to the political conditions (socialist-green presence), the transferred competences reaffirmed the sustainable mobility agenda with convergent objectives at the municipal and regional scale. The Socialist-Green coalition was even able to gain support

⁷³ The changes came after two laws: Loi n° 2000-1208 du 13 décembre 2000 relative à la solidarité et au renouvellement urbains and LOI n° 2004-809 du 13 août 2004 relative aux libertés et responsabilités locales. Whereas the City of Paris and the other Île de France departments are council members, the law attributes seats majority to the Regional Council (). This means that the Region’s president also becomes the Authority’s president, giving it complete control of the transport network in Île de France apart from some railroads controlled by the SNCF

from suburban municipalities by reducing car space and improving public transportation capacity (Halpern & Le Galès, 2019).

Another institutional change transformed the Regional Air Quality Plans. Right after his arrival to the presidency, Sarkozy's government (2007-2012) mobilized the *Grenelle de l'environnement*, a concertation process seeking to integrate environmental and sustainable development principles into a wide range of policy domains (Halpern & Pollard, 2017). The outcome of such process were the laws known as *Grenelle 1* and *Grenelle 2*⁷⁴, which incorporated the Regional Plan for Air Quality (created by the '96 law) into an "meta-plan" to bring out coherence in climate, air and energy policies, the *Schéma Régional Climat Air Energie* (Article 68, Grenelle 2). Therefore, the Île de France *Schéma*'s sections and actions on air quality drew on the 2009 Regional Plan for Air Quality and the State's *Plan de Protection à l'Atmosphère*. This reform on air quality planning represented no substantial change in the region's objectives, keeping the common understanding with the city.

Evidence of the above is that despite some general recommendations to the 2009 Regional Plan for Air Quality (incorporated in the *Schéma*), the Paris Council gave a favorable opinion on it. The suggestions were related to the development of public transports, incentives for the bicycle use and the development of less polluting vehicles. However, the city recognizes that many of its recommendations are already within the regional mobility plan,

“Concernant le trafic routier, de nombreuses actions sont prévues au Plan de Déplacements Urbains (PDU) de décembre 2000, actuellement en cours de révision, ou proposées par le Plan de Déplacements de Paris (PDP). Le PRQA pourrait prévoir :

- Le développement des transports en commun;
- la généralisation à l'échelle de la région des initiatives de développement de l'usage du vélo;
- le développement des véhicules moins polluants et mieux adaptés aux déplacements urbains” (Délibération/ Conseil général/ Juillet 2009 [2009 DEVE 30]).

⁷⁴ Their formal names are LOI n° 2009-967 du 3 août 2009 de programmation relative à la mise en œuvre du Grenelle de l'environnement and LOI n° 2010-788 du 12 juillet 2010 portant engagement national pour l'environnement.

A similar scenario presented in 2012 with the update to the Urban Mobility Plan for Île de France to which the Paris Council also expressed a favorable view during the consultation process (Délibération/ Conseil municipal/ Novembre 2012 [2012 SG 172]).

5.2.2 Political changes leading to coordination breakups

The city-region's common approach came to an end after the 2015 Regional elections. The arrival of Valérie Pécresse, a right-wing politician from the Republican party (*Les Républicains*) to the Region's executive set a completely different tone for air quality policy interactions due to her approach towards the car use. The remainder of this section and the other cases show that for the Pécresse, fighting emissions should be done through newer, less polluting cars, instead of discouraging its use and by reducing traffic jams through road infrastructure. She generally opposes to driving restrictions, either as permanent measures (such as the implementation of low emission zones or pedestrianization as shown in the third and fourth sections) or during pollution peaks (see the next section). To make this approach prevail, the new regional executive uses its competences and institutional ambiguities to exploit the openness of the rules and lean the balance of power (A. Sheingate, 2010). These actions led to constant conflict with the city as opposed to the previous sequence of positive coordination.

Proof of the region's abrupt turn is its 2016 Plan for Air Quality denominated *Changeons d'air en Île de France*. As mentioned below, the law Grenelle gave the State and the region the competence to co-elaborate the regional *Schémas* with the purpose to integrate climate, energy and air quality domains. The plan should be evaluated five years after its publication and, if necessary, the prefect and the region's executive can decide to issue a revised version (see Code de l'environnement, R222-6). Instead of fulfilling this obligation, the new republican majority issued *Changeons d'air*, a unilateral measure without any legal anchorage. A broader analysis of this action in Chapter 7 shows that this move was to break up with both, previous regional orientation, and the State intervention. Nonetheless, the regional council supports its elaboration with the ambiguity created by title of *chef de file* (leader) granted by the *Loi du 27 janvier 2014 de modernisation de l'action publique territoriale et d'affirmation des métropoles*, (also known as MAPTAM). The law grants the region the responsibility "for organizing, in a leading position [*chef de file*], the arrangements for joint action by local authorities for the exercise of their competences on... climate change, air quality and energy" (Art. 3 MAPTAM). Without any further precisions on the term *chef de file*, MAPTAM creates an institutional ambiguity, leaving room for interpretation which the region uses strategically to support its

actions. In its deliberation to approve the plan, the regional council makes reference to such competence,

“Article 1 : la Région, chef de file et pleinement mobilisée. Décide, en la qualité de chef de file sur l’air dont l’a investie la loi MAPTAM du 27 janvier 2014, de contribuer à l’amélioration de la qualité de l’air extérieur et intérieur de la région Île-de-France” (Conseil Regional, DÉLIBÉRATION N° CR 114-16 DU 17 JUIN 2016).

As shown throughout this chapter and the climate policy analysis, the region constantly uses this competence as an ambiguity to justify its actions, enter the decision-making processes and pressing the other actors to follow the regional view. In this case, by using its position as *chef de file*, issuing the plan was rather a strategic move to break up with the previous approach, hence bolstering its new focus, and a way to circumvent the State’s intervention in the issue.

Changeon’s d’air main features are: the reduction of traffic jams, developing non-polluting vehicles, a regional biking plan, aids to vehicle replacement and public transport, the implementation of experimental measures to confine bus lanes, replace diesel vehicles for hybrids and provide transitional parking facilities to ease public transport access (Art 6, Délibération N° CR 114-16 du 17 juin 2016). In the view of a regional high-level officer on environmental affairs, with all these actions, the general idea is not to stop the car-use. Rather, it is about making travel more efficient,

“Il faut faire baisser non pas ce qui roule. On n'est pas anti-route nous. On n’est pas la route qui pollue, c’est ce qu’ont fait rouler dessus nous ont dit les routes. Il faut arrêter les bouchons, il faut y mettre des véhicules propres, il faut y mettre du véhicule à la demande, il faut faire du covoiturage, il faut faire des mobilités un peu innovantes” (Interview 57).

The officer’s words summarize the region’s general view of the problem. They foster car-use, so the way to reduce pollution levels is neither by setting driving restrictions nor promoting the use of public transport but through less polluting vehicles and car-sharing. Such declarations are in line with one of the region’s main actions emanating from *Changeons d’air*, the regional *Plan Anti-bouchon* (Anti traffic-jam Plan). The document seeks to fight pollution by tracing and dissolving traffic jams through investments on road infrastructure (Région Île de France, 2018).

This plan represents a major point of conflict with the City. The Deputy Major on Transport, Christophe Najdovski considered that the *Plan anti-bouchon* is a “plan routier qui vise, lui, à

augmenter les capacités routières...alors que nous savons très bien aujourd'hui que c'est précisément la cause du mal de la congestion dans nos villes” (Débat Conseil Municipal, Juin 2019). Moreover, he considers that the plan opposes the objectives of the Urban Mobility Plan (elaborated by the previous socialist Regional Council) that sought to decrease car-use (Débat Conseil Municipal, Mars 2018). In consequence, the Paris Council issued a negative deliberation of the document and demanded studies to evaluate the impacts on pollution and circulation,

“La Région Ile-de-France ne peut pas se permettre de porter un projet contraire aux objectifs fixés par le Plan de déplacements urbains d’Ile-de-France qui porte le double objectif de diminuer de 2 % le trafic automobile et d’augmenter de 10 % la part des modes actifs : marche et vélo. Nous souhaitons donc, par ce vœu, demander à la Région Ile-de-France de mener une étude sur l’impact sur la circulation en Ile-de-France de son plan dit "anti-bouchons", d’évaluer les différents impacts environnementaux de la création de nouvelles infrastructures routières” (Délibération Conseil Municipal Mars 2018).

This quote of the Paris Council condemning regional planning incoherence is a good summary of how City-Region interactions remain contingent on political orientations. In this case it is not that conflicts arise just because both levels have different partisan orientation and try to advance political goals. It’s consequence of the different problem framings that result from partisan differences. The socialist-green majority under Huchon’s regional presidency favored less car-use and alternative transport modes. This problem conception matched the city’s approach, therefore both levels converged in the main policy directions, even despite personal animadversions between Jean-Paul Huchon and Bertrand Delanoë. In other words, they engaged in a coordinative discourse process leading to positive coordination. Party changes in the regional council came up with a different problem approach, fostering road construction and car-use, which the city considers the main cause of traffic congestion and pollution. To set up its new problem view, the right-wing regional executive issued a new plan to break up with previous actions from the socialist-green majority. The different framings brought by political orientations led to another coordination sequence resulting in conflict with the city. However, the struggles were mainly discursive with no interferences in the planning processes. As shown below, this is not the case when we move to other arenas, such as crisis control or the implementation of driving restrictions where actors intentionally interfered with each other. Besides, those other situations give additional evidence of the partisan and problem framing

effects in the interactions and add up other institutionalized patterns and cognitive elements that affect the interactions.

Table 5.2 Air quality plans

Plan	Law	Year	Actor in charge
Plan Régional pour la Qualité de l'air	LAURE	1996, first issued 2001, updated in 2009 and 2016	State with the participation of the Regional Council and the City of Paris. In 2002 transferred to the Region (loi 27 février relative à la démocratie de proximité). Then incorporated into the Schéma.
Plan de Protection à l'Atmosphère	LAURE	1996, 2013 and 2018	The State
Plan de déplacements urbains	LAURE / Loi mobilité	1996, first issued 2000, updated 2014	The State with the participation of the Regional council and the Paris Council. Then changed and elaborated by Île de France Mobilités.
Plan national de réduction des émissions de polluants atmosphériques	Directive NEC 2001	2003 & 2016	The State
Plan Particules	Réponse à la Commission Européenne	2010	The State
Plan d'urgence pour la qualité de l'air	Réponse à la Commission Européenne	2013	The State
Schémas Régionaux Climat-air -énergie	Grenelle de l'environnement	2012	DRIEE & Conseil Regional
Plan national de réduction des émissions de polluants atmosphérique	Loi relative à la transition énergétique pour la croissance verte	2015	Etat

Source: Own elaboration

5.3 Centralist legacies and politics during crises

Pollution crisis management is the air quality policy stream where the State holds a prominent position through the Police Prefect. Initially, pollution peaks management was a domain reserved exclusively to the State through the Île de France/Paris and Police Prefects and the

DRIEE. As a result of institutional and political changes, crisis management protocols⁷⁵ have evolved, turning pollution outbreaks into points of interaction between diverse actors. As seen in Table 5.3, AIRPARIF, the Region and the City of Paris, have an increasing formal role during pollution peaks while the State's role appears to be downsizing as the Prefect and the DRIEE have seen their participation reduced. Despite these changes over the years, this section shows that the State handles the protocols to manage pollution peaks due to global *référentiel* of central control.

AIRPARIF's growing participation started with the '96 LAURE. The law extended emission monitoring as a national priority for the whole country, augmenting AIRPARIF's importance on air quality policy (Bergé, 2019). Before that change, its monitoring and information tasks during pollution peaks were supervised by the DRIEE due to AIRPARIF's subordination to the State (as seen in chapter 3). Even after the LAURE and until 2007, the DRIEE still had to validate the association's models and estimations. AIRPARIF gradually gained full control over emissions' monitoring, dissemination and modeling due to its growing technical expertise.

Like AIRPARIF, the Île de France Region and the City of Paris have intensified their participation during pollution peaks. The transfer of the Transport Authority to the Regional Council in 2004 automatically placed it in an important position during these events due to its competence on public transport. Moreover, the 2016 protocol incorporated the city, the Region, the Metropolis, and the presidents of Île de France departmental councils into an advisory body to be consulted by the Police Prefect before setting any emergency measures. Despite including more actors in the decision-making processes, this section shows that the State retains crucial control over driving restrictions – the core action to manage pollution peaks – leading to conflicts with actors regarding the pertinence of the measures. Besides demonstrating central control legacies, the case shows how scale differences define the actor's positions towards driving restrictions. Finally, the case study confirms the two coordination sequences between the city and the region. It shows how the problem framing resulting from political changes at the regional level, combined with gradual institutional transformations that empowered the region, affects coordination processes.

⁷⁵ Its formal denomination is *Arrêté inter-préfectoral relatif à la procédure d'information-recommandation et d'alerte du public en cas d'épisode de pollution en région d'Ile-de-France*.

5.3.1.1 *The State's stronghold*

During pollution peaks the State holds a strategic position through the Police Prefect. Since 1998 an inter-ministerial decree sets the framework to elaborate local pollution outbreaks protocols by determining the thresholds triggering one of the two phases: information/recommendation and emergency. Once they activate, the ruling grants the Police Prefecture with the authority to define and implement the specific measures it considers necessary. The reason to allocate these competences in the Police Prefect is the “crisis status” of pollution peaks. This is depicted in the article 3 of the latest inter-ministerial decree:

“Art. 3. – Le préfet de zone de défense et de sécurité [Police Prefect in the case of Paris] établit un document-cadre relatif aux procédures préfectorales et aux mesures de dimension interdépartementale en cas d'épisode de pollution. Lorsqu'un épisode de pollution concerne plusieurs départements, le préfet de zone de défense et de sécurité prend les mesures de police administrative nécessaires à l'exercice de son pouvoir de coordination dans les conditions prévues à l'article R.* 122-8 du code de la sécurité intérieure. Il peut mobiliser une cellule de crise zonale” (French Government , 2016)

Automatically, the “crisis” label – *mobiliser une cellule de crise zonale* – places the State in control of pollution peaks. Therefore, even if other actors have access to the pollution containment process – such is the case of the partial competence transferred to AIRPARIF between 1998 and 2007 regarding monitoring, modeling, and dissemination of information (see table 5.3) –, this represents only a marginal change on the State's role. Moreover, the protocol guidelines leave room for discretionary actions. Until 2014, the specific timeframe to implement any of the measures remained undefined, leaving at the Police Prefect's discretion when to trigger any action. This ambiguity was cleared up, setting the deadline for information/recommendation phase measures when pollution levels persist for two days in a row, and three when it reaches the alert phase (French Government, 2016). However, as Table 5.3 shows, the type of measures remain as the prefect's exclusive prerogative since 1998.

Protocol changes in 2016 to involve metropolitan actors in the crisis management decision-making process are the most recent evidence of how the State opens the process to other actors but limits its role to keep control of the issue. The *Arrêté* created an advisory body involving the city, the Region, the Metropolis, AIRPARIF, the DRIEE, and the presidents of the departmental councils of the metropolitan area, to legitimize, discuss and get informed over the Police Prefect's decisions in the course of the outbreaks. According to the document, the

Police Prefect is supposed to take decisions related to driving restrictions once it has engaged in a consultation process with metropolitan actors,

“Le Préfet de Police décide, en lien avec les Préfets des départements, la mise en œuvre, en tout ou en partie, des mesures d'urgence prévues par le présent titre après consultation d'un comité composé de représentants des services de l'Etat et d'organismes, de collectivités et d'établissements publics territoriaux” (Arrêté Inter préfectoral, 2016, Art. 10).

The document is clear by indicating that the Police Prefect must decide in conjunction with (*en lien avec*) other actors. However, the decision remains as an exclusive prerogative of the former, leaving at the State level the power to decide whether and which measures to implement, even when facing some opposition during the consultation. An officer from the crisis division confirms it. The fonctionnaire recalls that during pollution peaks: “C’est arrivé parfois qu’il y avait des élus qui étaient contre, et la décision quand même été prise” (Interview 80). This also happens the other way around, and often when the City of Paris wants prompt driving restrictions, the Police Prefect decides not to act. For example, during a pollution peak in early 2019, the mayor demanded the Police Prefect to set driving restrictions after two days of emissions above the information levels (Pollution: Hidalgo réclame « des mesures automatiques » de restriction des véhicules polluants, 2019). It didn’t. Economic and even political considerations lay behind the decisions over such measures. According to an officer from the Prefecture it is about finding a balance between human health and the city’s economic activity,

“[L]e but c'est de prendre des mesures. C'est un équilibre entre la préservation de la santé humaine, voilà, et aussi un équilibre entre la préservation de l'activité économique et de la libre circulation d'aller-venir, donc ces deux plateaux de la balance. Et ce sont des intérêts qu'il faut essayer de concilier, donc les mesures sont prises progressivement” (Interview 80).

In the quote it reads that the prefect considers economic and sanitary interests when deciding whether and which measures to implement. Political interests enter also in the formula. During a pollution episode in 2014 the Police Prefect delayed the implementation of driving restrictions and ended up setting them once the outbreak was almost over. Pollutant emissions exceeded alert thresholds for four days in a row and by the time the *Préfecture* decided to implement driving restrictions, the outbreak was coming to an end without any provisions of

another spike (AIRPARIF, 2014). According to the *Cour des Comptes*, the General Audit Institution of the French Assembly, the outbreak's timing during elections period played a role on delaying the measures,

“La mise en œuvre aurait été possible les jours précédents, puisqu’il y a eu quatre jours consécutifs de dépassement du seuil d’alerte. Mais des considérations diverses et la tenue d’élections le dimanche 16 mars ont sans doute joué pour retarder son instauration. L’arrêté du 17 mars 2014 a donc été pris sans base réglementaire. Les coûts directement liés à cette mesure, engagés tant par l’État (mobilisation des forces de l’ordre estimée à 273 000 €51) que par les opérateurs concernés par la gratuité des transports, ne reposent pas sur une décision régulière” (Cour des comptes, 2015, p. 81)

The audit institution arrives to the same conclusion as AIRPARIF. *La Cour* indicates that the Police Prefecture took the decision without any reglementary basis and, even when the measure was not even needed anymore, it ended up costing 273,000€. Holding the competence on pollution peaks reveals the “special relationship” between the State and Paris, and how the former’s retreat is mostly apparent. The State still retains control over strategic issues in the city. With the decentralization process the powers of police were transferred to the mayors but not for Paris, where this task remains on the State and resists to give away much ground. In 2017 a reform to the Statute of the City of Paris transferred to the City some powers of police; nonetheless, it left strategical features, such as crisis control, in hands of the Police Prefect (Chauvel, 2017). That way, competences regarding pollution peaks management remain unchanged due to its crisis status turning it into a security issue to be handled by the Prefecture. This resistance to give up control of pollution peaks is a centralist legacy, a global *référentiel* influencing interactions with effects on coordination processes, in which decisions are taken unilaterally, leading to tensions.

In addition to the so-called “equilibrium between economic development and public health” sought by the police prefect, the discretionary use of this competence creates tensions between the governmental actors of the Parisian region. While many outer departments and communes generally oppose to the implementation of driving restrictions, the city of Paris demands immediate action right after pollutant emissions exceed the alert levels. This has to do with the different approaches to the problem due to scale differences. Metropolitan communes complain about the affectations to their citizen’s trips to the city, where most of them work and to whom public transport is not a viable option due to long travel times. Conversely, Parisians are less

concerned with the restrictions and even support them.⁷⁶ The city's position and general interactions are well depicted by an advisor to the Deputy Mayor of mobility of the City of Paris,

“[Ç]a [driving restrictions] le Préfet généralement il [ne] veut pas le faire parce qu'il considère que ça peut gêner trop les gens dans leurs déplacements et donc on est systématiquement en bataille avec le préfet et souvent avec les autres départements aussi qui [ne] veulent pas mettre en place la mesure. On est sur une compétence du préfet et nous on réclame systématiquement des mesures qui sont efficaces pour baisser les émissions et systématiquement ces mesures tardent à se mettre en place et le Préfet attend trois, quatre, cinq jours avant de les mettre en place. C'est dommage ! Nous on milite beaucoup pour qu'il y ait une automatisation de la mesure. Le Préfet veut pas parce qu'il dit ça dépend des conditions météo etc. Le Préfet prend en compte aussi beaucoup d'événements extérieurs” (Interview 48).

The three positions mentioned by the advisor arise according to political interests. On the one hand, the city wants to implement restrictions *tout de suite*, because the Parisians are not affected and, in the advisor's words, they are even happy when it happens: “quand on prend des mesures qui sont contre la voiture la majorité des parisiens sont pas concernés, sont plutôt heureux que nous travaillons pour baisser les émissions” (Interview 48). Basically, the city favors driving restrictions because it is politically attractive to its constituencies. Other departments reject the measure due to the implications for their population. As the analysis of the Low Emission Zones shows later in this chapter, scale differences are a hindrance for the implementation of driving restrictions due to the social and political diversity of the *communes* in the Parisian region. Finally, the Police Prefect does what is best to keep the State's interests, taking into consideration the economical, sanitary and, more important, the political implications of setting the unpopular measure. Coordination during pollution peaks is then centrally controlled plagued with tensions leading to interferences, such as the next sub-section shows.

⁷⁶ In the words of an advisor to the Deputy Mayor of Transport:

Table 5.3 Actors and main tasks on for pollution peaks management according to the protocols

Actor	1994	1998	2005	2007	2011	2014	2016
Police prefect	Trigger and enforce restrictions to fixed sources	Decide when to trigger and enforce alert measures (driving restrictions and speed controls). Inform on alert procedures and sanitary recommendations to the general public.	Information competences on sanitary recommendation and pollution levels to the general public transferred to AIRPARIF	Unchanged	Unchanged	Unchanged	Specific time frame to declare each phase
Île de France/Paris Prefect	Coordination with the Police Prefect	Coordination with the Police Prefect. Assure gratuity of transports by the state-controlled transport authority	Only coordination with the police prefect	Unchanged	Unchanged	Unchanged	Unchanged
DRIEE (formerly DRIRE)	Supervise AIRPARIF	Validate AIRPARIF pollution models and estimations	Unchanged	+ Advice on alert thresholds No longer validates AIRPARIF's models	Unchanged	Unchanged	Member of the advisory committee on alert measures
AIRPARIF	Pollution monitoring and information procedures under DRIRE supervision.	Autonomous pollution monitoring and disseminate information on pollution levels to the authorities.	+ Inform on sanitary recommendations and pollution levels to the general public	Estimations on pollution levels and give advice on the alert thresholds	Unchanged	Unchanged	
IDF Regional Council	-	Receive information on the adopted measures	+ Gratuity of transports in the communes affected by the alert measures	Unchanged	Unchanged	Unchanged	Reductions or gratuity on transports. Member of the advisory committee on alert measures
City of Paris (applicable to all the communes)	-	Receive information on the adopted measures	Unchanged	Unchanged	+ Can engage in measures related to reductions on parking fees to de-incentivize car-use	Unchanged	Member of the advisory committee on alert measures

Source: own elaboration with information from the protocols.

5.3.1.2 Revealing city-region interactions during crisis management

Besides the State's role in the Parisian region, crisis episodes show the contingent character of the city-region relationship and the strategic use of their competences. As the previous section showed, similar party coalitions ruling both entities will most likely share a similar problem approach. In this case, this derives in a common understanding of the actions to handle

pollution peaks. An opposite scenario will lead to breakups and the political use of their competences on two points of interaction: on whether to set or not driving restrictions and the transport-related measures coming with it. In consequence, interactions on both are determined by institutional and political changes.

The evolution of competences affects the city-region interactions in pollution peaks in two ways. The first one is indirect, by opening windows or ambiguities that the Region currently uses to manipulate their access on decision-making processes and impose its view. The decentralization process in the 80's granted the regions with the task of promoting territorial cohesion. For the specific case of Île de France, it means that by exerting its competences on economic development and territorial planning, the region should seek equilibrium in certain domains between all the *collectivités* and a powerful Paris. As seen before, gradual changes expanded the role of the region on air quality and other environmental issues, mostly through planning (Table 5.2). Moreover, the MAPTAM Act of 2014 grants the region the responsibility to coordinate and organize territorial action by naming it as *chef de file*. As mentioned above, without a proper definition, the region uses the term's ambiguity to justify its actions, even if it doesn't hold a direct, specific competence.

In second place, institutional changes also lead to the Region's direct participation in the crisis control process due to its competences on public transport. During the outbreaks, the region-controlled Transport Authority, Île de France Mobilités (formerly STIF) can modify public transport fees to incentivize its use and, to some extent, palliate the effects of driving restrictions. This competence was in the hands of the State, until its transfer to the Regional Council in 2004. As the following analysis on pollution peaks management shows, the way the Region exerts its competences or the extent to which it will take advantage of the ambiguities depends on whether its problem view is convergent with the city's, defining possibilities of joint action among them.

In 2015, a series of pollution peaks joined up together the Mayor of Paris, Anne Hidalgo and the Region's president, Jean-Paul Huchon, to issue a joint statement demanding not only the State's intervention to implement driving restrictions, but also the creation of a task force to take decisions regarding the events,

“Les conséquences néfastes sur la santé des Franciliens des pics de pollution aux particules fines appellent une anticipation et une coordination de l'Etat, de la Ville de Paris et de la Région. Il faut préparer dès aujourd'hui les conditions favorables à un

retour à la normale par des mesures efficaces sur le plan environnemental et adaptées aux besoins de mobilité des franciliens. Le travail opérationnel doit être engagé en convoquant sans tarder une cellule de crise associant à l'Etat, les experts, la Ville de Paris et la Région, afin de prendre les décisions nécessaires au regard de l'évolution de la situation" (Hidalgo & Huchon, 2015).

Hidalgo and Huchon basically demanded coordination to end up with the outbreak. Their press release shows that they were both willing to join up forces. Moreover, the region acted according to its problem approach. The regionally controlled transport authority, STIF, set free public transport during the crisis, according to the existing protocol rules. However, this joint approach towards driving restrictions and public transport fees was about to change after the 2015 regional elections.

Initially, the incoming president seemed to follow her predecessor's stand on pollution peaks. During an outbreak in early December 2016, Valérie Pécresse used twitter to urge the State to implement driving restrictions, while the Region would provide free public transport: "Si le #picdepollution se poursuit le préfet doit envisager la circulation alternée et la Région assumera la gratuité des transports" (Pécresse, 2016). The region's executive aimed to take this even further and make this a common practice by triggering driving restrictions automatically once emissions reach the alert levels accompanying with free public transport in such situations,

"Valérie Pécresse et Chantal Jouanno [Vice-présidente chargée de l'Écologie et du Développement durable] réitèrent leur demande au Préfet de police de mettre en place la circulation alternée le plus rapidement possible. À l'avenir, la Région souhaite que le déclenchement de cette disposition soit automatique dès lors que les indicateurs de pollution l'exigent. Pour atténuer les désagréments que cette décision cause aux automobilistes franciliens, la Région mettra en place la gratuité totale des transports en commun en Île-de-France pendant cette période" (Pécresse and Jouanno, 2016).

Few days after these declarations Pécresse recanted, arguing that due to the State's underinvestment, a power outage in the Region's railroad network didn't set the conditions to implement driving restrictions and demanded its suspension: "Je demande au Préfet de suspendre la #CirculationAlternée tant que la situation sur le réseau ferroviaire IDF n'est pas revenue à la normale" (Pécresse, 2016). The Mayor of Paris reacted blaming the Region for not doing enough to improve public transport, a regional competence, to decrease its emissions,

“Une ville comme Paris a trop de véhicules polluants. Ce sont les transports en commun et je sais qu'il y a de gros problèmes, mais c'est à la région de s'en occuper. Et je demande à la présidente de région de se consacrer à sa tâche...” (Circulation alternée à Paris: sur LCI, Anne Hidalgo demande à Valérie Pécresse de “se consacrer” à sa tâche plutôt que de “polémiquer sur d’autres sujets”, 2016)

Both discourses are revelatory of the city-region interactions regarding air quality actions. As the rest of the chapter shows, this leads to blame games (just as Hidalgo pointed to the region's inaction on public transport) and interferences by blocking or changing some measures. Besides that, an interesting feature is Pécresse's change, first demanding driving restrictions and then opposing to them. What motivated her for the change is unclear. Probably she just talked too soon, before doing a political calculation. Maybe a rookie mistake. No matter the motivation, the second position reflects the current regional administration's problem approach, privileging the car-use and generally opposing to any type of driving restriction. Behind such view are arguments to maintain regional equality. According to regional officers from the air quality division, driving restrictions create inequalities between Parisians and the population living outside the city looking to get to there for their professional activities,

“La région en fait par rapport à ces démarches (restrictions à la circulation) a beaucoup défendue effectivement la grande couronne, les gens les plus éloignées de paris...Les mesures finalement qui peuvent être prises de restrictions de circulation elles touchent pas forcément toujours de manière la plus importante les personnes qui sont dans les zones dans laquelle elles se font. Cantonné à Paris quand est travaillé à Paris, on peut se déplacer autrement qu'on prenant la voiture. Par contre, quand on vient de la grande couronne pour aller travailler sans prendre la voiture on sera peut-être un peu plus compliqué” (Interview 59).

To oppose restrictions, the Region uses a narrative based on equality. According to the officer, the regional authority has “defended” the *grande couronne*, whose population, according to them, is the one with more affectations from these measures because it's difficult for them to get to the city using public transport. This discourse, or at least its use, is anchored in the region's institutional mandate to foster equilibrium and territorial cohesion between the *territoires franciliennes*. In this way, these competences provide, at least indirectly, a way into the policy process. As the rest of the chapter shows, regional officers constantly refer to this attribution to support their problem view. This leads to conflict with the city and the metropolis because two different discourses clash, one related to regional cohesion and the other focused

in the well-being of the metropolitan territory, which is prone to driving restrictions. In other words, institutionalized scale differences lead to conflict. This is evident in the case analyzing the low emission zones, where the evidence for this assumption is provided. For now, it suffices to state the regional point of view of driving restrictions anchored in its institutional mandate.

To put forward its view on driving restrictions, the Region needs a formal entry to the crisis management decision-making process. Even though the competence to set restrictions lays exclusively in the Police Prefect (see the previous sub-section) – and to some extent to the communes through the Low Emission Zones (section 5.5) – the Regional Plan, “*Changeons d’Air en Île de France*” invokes the position of *chef de file* to get access on decisions concerning such measures,

“La Loi MAPTAM du 27 janvier 2014 a investi la Région de la responsabilité de chef de file pour le climat, la qualité de l’air, l’énergie et la biodiversité. A ce titre, la Région Île-de-France entend : Être pleinement associée aux procédures et décisions de gestion des épisodes de pollution de l’air aux côtés de l’Etat, en particulier, la Région souhaite être officiellement associée aux décisions de gestion prises en situation de pics de pollution. Cela concerne notamment les décisions en matière de restrictions de circulation” (Conseil Régional d’Île de France, 2016).

Once more, the institutional ambiguity opened a discursive channel through which the region demands its inclusion into decision making and crisis managing procedures. As mentioned above, the protocols created a consultative body to which the Police Prefect announces its decision regarding the planned measures to appease the outbreaks. Initially, the region was not contemplated to be part of the crisis cell. When the executive noticed the region’s absence, she openly called for its inclusion. During the Regional Council’s session to vote the plan *Changeons d’Air en Île de France*, President Pécresse demanded the Police Prefect to change the protocol and include the region in the decision-making process (Radisson, 2016). A high-level civil servant from the regional office for the environment gives account of the situation, arguing on the affectations to the entire territory and not just the metropolitan area,

“J’ai vu que la Préfecture de Police avait sorti un arrêté qui prévoyait la composition de la cellule de crise... C’est le préfet de police qui décide après mais il consulte quand même les membres de la cellule de crise. Et dans la cellule de crise il y avait AIRPARIF, il y avait la Ville de Paris il y avait évidemment l’État régional dans sa compétence là [DRIEE], il y avait les départements de petite couronne, il y avait la Métropole du

Grand Paris, il y avait pas la région. Et donc je le dis à la présidente quand elle monte à la tribune pour présenter le rapport et le faire voter au Conseil Régional et donc là du coup Préfet [de Police] était venu pour la conférence de presse donc elle tape du point sur la table en disant « c'est un scandale, je demande que cet arrêté soit annulé et que le nouvel arrêté soit pris avec la région dedans ». Il y a aucune raison que la région ne soit pas et que la métropole y soit. La qualité de l'air et les crises des pics de pollution sont pas des sujets qui ne concernent que les habitants de la zone dense. Vous avez aussi des zones polluées dans milieu rural etcetera. La pollution ignore les limites du périphérique. Du coup le préfet a annulé son arrêté. Il a repris un arrêté où on a la région” (Interview 57).

The main argument to demand the region's presence was that air quality and pollution peaks are not only a concern of the highly dense area (the metropolis) but also of other, less populated areas inside Île de France. Implicitly, this argument takes into consideration the region's competence related to territorial cohesion, which uses to support its view opposing driving restrictions. Although the decision to set these measures during pollution episodes remains in the Police Prefect, the Region's presence in the crisis cell involves it formally in the interactions to at least express its view and raise its concerns in the issue. These arguments reveal the use of ambiguities and indirect competences to influence crisis management processes. On the one hand, the institutional mandate to ensure regional equality and territorial cohesion is behind their claim to oppose to driving restrictions. On the other hand, the title of “*chef de file*” opens an ambiguity that is exploited by the regional authorities to get access and try to influence the decision-making processes.

As head of the Transport Authority, the region has a formal way to influence crisis management processes through fee control. Gratuity on transports was commonly used to incentivize the use of public transport during pollution peaks and, to some extent, palliate the effects of driving restrictions. The State first introduced the measure in 1998 and continued after the relocation of the Transport Authority to the Region in 2004 (table 5.3). In 2016, however, the region's executive demanded to change the protocol. Instead of ensuring gratuity of transports by IDF Mobilités (as mentioned in the 2014 *Arrêté*), the article 14 on the “Réduction tarifaire ou gratuité des transports publics en commun des voyageurs” removed the mandatory gratuity clause, indicating that the Transport Authority “facilite par toute mesure tarifaire incitative l'accès aux réseaux de transport public en commun de voyageurs” (Arrêté Inter préfectoral, 2016). In consequence, the next year, IDF Mobilités replaced free transport by an *antipollution*

daily pass for 3.80€. The arguments for this change are the low impact, unfairness, and financial unfeasibility of the measure. From the point of view of the regional fonctionnaires from the transport and air quality divisions, the cost-benefit analysis has a negative perspective,

“si on mettait tous les transports en commun gratuits en fait on baisse le trafic de 2 %...ceux [gens] qui n'ont pas d'abonnement comme les autres ils vont prendre le transport en commun donc la seule chose qu'on va faire c'est on va charger en heure creuse les transports en commun, ce qui va coûter plus cher à la collectivité sans enlever des voitures” (Interview 73).

“À un moment la réglementation a été faite de manière que ça coûtait très cher à la Région parce que les transports en commun devenaient gratuits et donc c'était quelque part un peu anormal que finalement ce sont que vont payer toute l'année les transports en commun qui paient pour ceux qui ne paient jamais” (Interview 59).

The Region's changes are just part of its broader problem approach. According to the quotes, the measure is not just expensive and unfair for those who pay their yearly or monthly pass, but it is useless to decrease pollution levels. Moreover, it does not discourage car use, something that the region is not even looking for. The change affected previous agreements that fostered coordination between the city and the region. Even more so, it led to conflict with the city. Reintroducing transport fees during pollution peaks fostered a reaction from the Paris City Council. The body called for the reestablishment of free transport (see the below quote) while refuting the region's financial infeasibility argument. At the Green Party's initiative, the council urged the mayor to demand the president of IDF Mobilités, hence the region's president, the reinstatement of public transport gratuity,

“le Conseil de Paris Émet le vœu que : la Maire de Paris demande à la présidente d'IDF Mobilités de rétablir la gratuité des transports en commun lors des pics de pollution atmosphérique en s'appuyant sur l'augmentation imprévue des recettes voyageurs ce qui permettrait de financer la gratuité des transports en commun pour 22 journées” (Délibération/Conseil Municipal/ 2, 3 et 4 mai 2018/ 2018 V.232).

This conflict highlights once more the divide after the 2015 elections and emphasizes the regulatory character of politics during interactions where scale differences and ambiguities prevail. Coordination processes during pollution peaks operate under the global *référentiel* of central control, leading to conflict between the actors in the Parisian region. The section showed that the State holds, through the Police Prefect, the competence to set up driving

restrictions according to its economic and political interests. Whether it decides to set up the measure or not, it enters conflict with other actors: with the city of Paris and the pre-2015 region when the prefect decides to hold on the decision and with several metropolitan communes and the current regional executive whenever the prefect decides the opposite. The reason why this leads to conflict are the problem views. Politics regulate the interactions by joining up similar approaches to the issue (i.e., restrict car-use and foster public transport). In the absence of a similar view of the issue, scale differences between the city, other communes and the region, plus regional institutional mandates will prevail, leading to conflicts.

5.4 The Seine riverbank roads affair. Unilateral actions with expansive consequences.

A major battlefield opened up in 2016 when Anne Hidalgo decided to ban car traffic along the Seine riverbanks (George Pompidou Road), right after the Paris Council gave its green light by declaring it as a matter of public interest (Conseil de Paris, Délibération SG29, 2016). Metropolitan communes and the region's executive actively criticized the city's unilateral actions, arguing spillover effects by relocating pollution and traffic jams outside Paris. While technical studies were rather inconclusive over the magnitude of the measure's effects, reactions from diverse actors intended to revert it, associating its negative externalities to "Parisian egoism". The following analysis shows how, in the absence of political regulation, policy incoherence results from the isolated exercise of one actor's competences. Prevailing scale differences led to conflictual interactions when the city sought to reduce internal pollutant emissions in one area without considering its political effects at the regional scale.

Hidalgo's decision faced fierce opposition from several associations, communes and departments from the *petit couronne*, and, unsurprisingly, the President of the Region. Their main complaints were towards the city's unilateral actions and the lack of a consultative process on a decision yielding consequence outside its jurisdiction. According to an agent of Plaine Commune, an *Établissement Public Territorial* (EPCI) in the north of Paris, the city acts unilaterally in many affairs because "that's how the rules of the game are established", generating complaints from its neighbors,

“ [A]ujourd'hui réglementairement dans les dispositifs de gouvernance politique la Ville de Paris peut faire quasiment tout de manière autonome surtout sur ces enjeux de mobilité ...et c'est normal il y a plein de choses qui ont une répercussion surtout à l'intérieur de Paris. Mais vous voyez par exemple les voies sur berge. Nous, les voies

sur berge c'est pas vraiment un sujet pour nous en gros, c'est un sujet pour le [Département de] Val de Marne, les communes qui sont du côté de Charenton...donc nous on n'est pas monté du tout au créneau mais il y en a pleins qui sont montés au créneau parce qu'ils disent qu'ils ont pas du tout écoutés, concertés et ils sont mis devant le fait accompli; voilà donc c'est vrai que il y'a parfois sur certains sujets il peut y avoir des sujets où techniquement ça a pu être un peu travaillé mais politiquement ça l'est pas forcément" (Interview 66).

Additionally, the officer's quote reveals that rather than a positive stand on the issue, they didn't complain because the closure doesn't affect them. In that sense, the issue contains trying to avoid the policy change (Cobb & Coughlin, 1998) argued that closing the riverbank roads would create traffic jams and pollution in the metropolitan area. For example, the Municipal Council and the Mayor of Saint-Maure des Fossés, a municipality located in the Department of Val de Marne, demanded to stop the closure and claimed that all the future decisions of such kind should be coordinated and concerted within the Urban Mobility Plan of Île de France (Conseil Municipal, Ville Saint-Maur-des-Fossés, 2016).

Saint-Maur-des-Fossés is just one of other communes that expressed its disagreement with the city's actions. However, the most energetic response came from the Regional authorities. Once again, in the absence of a shared problem perspective due to opposite partisan views, the institutional differences between the city and the region prevailed, leading to conflict. The latter's arguments strive on keeping regional equality. While emphasizing Parisian egoism, a high-level officer from the Division of territorial cohesion (in charge of energetic transition, air quality and climate affairs), justifies the Region's opposition by arguing on its wider focus that leads to look up for the territory as a whole,

“[Il y a] un report de la pollution pour des populations qui sont plutôt moins riches parce que les gens qui habitent sur les quais de seine sont plus riches que ceux qui habitent évidemment sur le périphérique et donc finalement Valérie Pécresse elle a dénoncé de façon très vigoureuse le fait qu'il y avait une forme d'égoïsme des parisiens...On l'a contesté [la décision] au nom de la solidarité et de l'intérêt général de la région. Nous on représente tous les franciliens. Pas seulement nous tout seuls, mais tous les départements de grande couronne et tous les départements limitrophes du périphérique ont attaqué au motif qu'il y avait un effet de report de pollution et que la santé d'un habitant du Val de Marne était pas moins précieuse que la santé d'un habitant de

Paris...elle [Anne Hidalgo] a fermé et on se préoccupe absolument pas des effets de report de pollution” (Interview 57).

Almost identically to the pollution peaks case, the region uses the territorial cohesion argument to oppose the city’s actions. Moreover, what the fonctionnaire describes as Parisian egoism is more a unilateral use of its competences (no previous agreement), product of the different problem views, just as the region did with transport fees. The city closed the riverbank roads basically because it could. Institutions distributed competences and granted mayor Hidalgo with the power of doing that. Indeed, from the city’s perspective the decision to pedestrianize the riverbank roads falls within its competences and should be handled internally. As a Green party councilperson indicates, the decision is for the City Council to take and it was previously discussed in the municipal project. Therefore, the other actors shouldn’t be surprised when the roads were finally closed for circulation,

“tout ce qui s'est passé autour du débat sur la seule arrivée la piétonisation des berges et le positionnement du Conseil Régional contre cette décision de du Conseil de Paris, parce que faut quand même pas oublier que c'est une décision du Conseil de Paris, il faut pas oublier que c'était un projet qui était dans le programme municipal majorité quoi enfin n'avait rien d'étonnant à faire ça” (Interview 51).

In fact, those decisions were for the city to make, but the problem was that they ended up having negative spillovers outside Paris jurisdiction, without necessarily positive effects decreasing the pollution levels (shown below). The effects of these decisions were known only after the region demanded technical studies and undertook legal actions to overturn the city’s decision. Both actors separately demanded the realization of impact studies to legitimize their claims. A regional public officer in the air quality division, considers that even if the studies favor the region, they have an argumentative use to support their views. In other words, actors justify their actions by giving their own interpretation,

“des études qui chacun les interprète des manières différentes ; oui sur les voies sur berge ils ont fait le rapport. Voilà chacun a communiqué pour dire que ça alors donné raison mais bon ça doit le plus tôt je me demande ça donne plutôt raison à la région” (Interview 59).

As the officer acknowledges, the conflict unleashed an argumentative struggle supported by technical assessments. For instance, the Region installed an evaluation committee (*Comité régional d'évaluation de la fermeture des voies sur berges*) integrated by various organizations

(Airparif, Bruitparif, Paris Region Institute, Île de France Mobilités, the Observatoire Régional de la Santé and the NGO France Nature Environnement), without the city of Paris. According to the group's study, the measure had no visible positive effects: air quality remained unchanged due to higher traffic congestion, pollution got displaced to other sites, and the travel time for bus and emergency services increased (IAU îdF, 2017). The City, on the other hand, commissioned its own study to AIRPARIF, yielding mixed results: a decrease in pollution levels along the riverbank roads contrasted with an increase on the measurements in Eastern Paris. At the metropolitan scale AIRPARIF evidences small variations in higher nitrogen dioxide levels on some major roads, possibly related to the riverbank roads' pedestrianization (AIRPARIF, 2017). Overall, the study didn't find conclusive proof of a positive or negative impact : "aucun impact significatif sur l'exposition des populations n'a été mis en évidence à la hausse ou à la baisse " (AIRPARIF, 2017, p. 3).

The conflict escalated to the judicial arena where various associations and *collectivités* submitted legal recourses to overturn the pedestrianization. Among them, the Region stood out for devoting the highest amount (130,000 €)⁷⁷ to fight the riverbanks closure (Bontinck, 2018), obtaining fruitful results: the Administrative Court of Paris overruled the city's project in early 2018. The Court considered the environmental impact studies used to justify the decision to be imprecise, without providing conclusive evidence on the pedestrianization's positive effects. Therefore, Hidalgo's decision suffered a setback when the court annulled the Council's deliberation that approved the measure due to weaknesses in the environmental impact assessments,

"Le tribunal a estimé que cette étude d'impact comportait des inexactitudes, des omissions et des insuffisances concernant les effets du projet sur la circulation automobile, les émissions de polluants atmosphériques et les nuisances sonores, éléments majeurs d'appréciation de l'intérêt général du projet...Le tribunal a, dès lors, considéré que le public n'avait pu apprécier les effets de la piétonisation des voies sur berge au regard de son importance et de ses enjeux. Il a, par conséquent, annulé la délibération du 26 septembre 2016 adoptée sur le fondement d'une procédure irrégulière" (Tribunal Administratif de Paris, 2018).

⁷⁷ Valérie Pécresse was highly criticized by the Socialists and the greens for engaging 130,000 € of the region's budget to pay the legal fees of a private law firm to submit the resource (Ensemble Île-de-France, 2018)

The court agreed with both studies (even the one requested by the city). It seemed that the region had won the argumentative battle. However, the city of Paris re-submitted the project now with a different argument, relating the pedestrianization to the cultural heritage of the riverbanks along the Seine. This time, the Region didn't present another recourse and the closure remained for good. Pécresse raised again her concern related to territorial coherence and equality among all the communes belonging to the Île de France territory. The regional president expressed a normative view, where Paris should not be isolated from the region and proposed an alternative scenario to reinstall road traffic and change progressively the riverbanks landscape. In a couple of interviews, she stated the following,

“Il y a un premier principe à respecter : on ne peut pas faire comme s'il y avait Paris d'un côté, dans sa bulle, et le reste des Franciliens de l'autre côté”(Martin, 2018, p. 16).

“C'est franchement je le dis, le contre-sens de l'histoire. Aujourd'hui l'histoire politique, l'histoire démocratique de notre pays c'est plus de concertation, savoir accepter le compromis, se mettre tout le monde autour de la table. C'est trouver des solutions qui soient progressifs, respectueuses de chacun et du coup acceptés par tous. C'est pour ça que je mets autour de la table un scénario alternatif de piétonisation... qui transforme cette autoroute urbaine en une rue avec une seule voie à 30 (km/h) et pendant deux ou trois ans de transition vers des véhicules plus propres et bien on ferait des mesures transitoires...Ce que je propose est un scénario qui propose de réaliser le projet du maire de Paris parce que mon rôle n'est pas de contrecarrer le projet d'un maire, mon rôle c'est de le mettre en cohérence avec les 1270 communes” (Salamé, 2018).

After losing the battle, Pécresse goes back to her narrative of the region's institutional mandate of promoting territorial cohesion while expressing her political differences with the city's actions. She first accuses the city of setting itself apart from other Île de France municipalities and then softens her words to state that her role is to bring up coherence between all the *communes*. This twofold discourse resumes the interactions during the riverbank roads affair, characterized by policy actions leading to political disagreements supported by divergent narratives. Different approaches to the problem without political convergence and the attribution to act unilaterally hindered any type of coordination. This was the result of the distribution of power: the system of attributions gives incentives to unilateral actions without necessarily carrying out previous concertation. The city of Paris made use of its competences to close the riverbanks roads and follow a political project no matter the outside consequences. On the other hand, the outsiders, such as the metropolitan communes, departments and the

Region tried to block the closure because that will affect their population either in their way to Paris or by displacing pollution to their territories.

5.5 Halfway metropolitan coordination and the dispute for *Grand Paris*. The implementation of the Low Emission Zones.

The Law Grenelle 2 introduced the low emission zones – *zones d'actions prioritaires pour l'air* – as experimental measures to restrict the circulation of the most polluting vehicles in large agglomerations with high levels of pollutant concentrations (art. 182). Paris applied to be part of the trials and ultimately dropped the project. Feasibility studies carried out by the Paris Urbanism Agency (APUR) and financed by the Agency for the Ecological Transition (ADEME) revealed technical, social and legal constraints and a low environmental impact (APUR, 2012, 2014; Cour des comptes, 2015). According to the Paris Urbanism Agency, a project of this type requires to be extended outside Paris to obtain significant effects and at that time the surrounding *communes* were not technically prepared to submit their candidacy (APUR, 2012). Despite other ephemeral efforts to retake the low emission zones (such as in the Plan d'Urgence pour la Qualité de l'air in 2013), it was finally implemented in 2018 under a completely different context of political diversity and institutional transformations: different ruling coalitions in the Île de France and Paris councils, new competences attributed to the municipalities and a newly introduced scale of government at the metropolitan level in charge of implementing the strategy.

The case of the low emission zones reveals halfway coordination patterns defined by strategic behaviors as consequence of politics, scale differences and path dependent considerations. For instance, some metropolitan municipalities oppose to the measure arguing its incompatibility with local conditions. According to them, low emission zones are regressive, affecting the poorest citizens with older, more polluting cars that need to travel to the city. Others favor the measure, privileging air quality over social conditions (see Map 5.1). Both approaches strive in territorial differences related to their local needs. This poses a major challenge for the *Métropole* because as the scale in charge of implementing the measure it must reconcile all interests and make them catch up with the City of Paris, which has set stricter restriction standards. Another interaction-defining element is the divergent perception towards the metropolitan authority among the region and the city. The former catalogues it as a useless tier that only complexifies policymaking due to: (1) political calculations of a new government level threatening the region's zone of influence in the *petit couronne* and (2) a path dependent process that has reinforced the region's self-conception as the "real metropolis" in charge of

bringing out territorial cohesion. In contrast, the emergence of the metropolitan institution has been in the city's agenda for longtime, leading to conform a win-win alliance between both actors. The metropolis helps the city to expand its zone of influence with the neighboring communes while getting a powerful ally to gain legitimacy and counterbalance the region.

5.5.1.1 Low emission zones in action: trying to conciliate scale differences

The Energetic Transition for Green Growth Act (*LOI n° 2015-992 du 17 août 2015 relative à la transition énergétique pour la croissance verte*) reinstalled Grenelle's low emission zones granting the mayors with the attribution to define the type of restricted vehicles. For the first time, municipalities, including Paris, had the power to set driving restrictions related to pollutant emission levels. Once again, the Ministry of Ecology, Sustainable Development and Energy launched the instrument as an experimental measure, seeking to "implement exemplary measures for the recovery of air quality on their territory" (Royal, 2015). For that aim, the minister Ségolene Royal, issued the call "Villes respirables en 5 ans" through the ADEME, which would provide financial and methodological support to the selected cities. Along with the re-launch of the low emission zones, the Ministry presented the air quality certificates, a sticker system (*vignettes Crit'Air*) to identify the most polluting vehicles. That way, restrictions are connected to an informational instrument defined by European regulations.⁷⁸

As mentioned above, one of the main obstacles for the previous attempt was related to the scale. Like a solution waiting for a problem, the upcoming metropolitan institution seemed to be the right level to implement the low emission zones in Paris. Therefore, instead of the city, it was the "Mission de prefiguration de la Métropole du Grand Paris"⁷⁹ the one who submitted the project to address the issue at the metropolitan level. Once constituted, the Metropolitan Council adopted formally the Low Emission Zones in 2018 as one of the objectives set in its Climate, Air and Energy Plan,

"Dans le cadre de sa compétence en matière de lutte contre la pollution de l'air (définie et validée à l'unanimité par la délibération du 8 décembre 2017), la Métropole ... Coordonne la mise en œuvre afin d'harmoniser les interdictions de circulation à l'échelle de la Métropole...Cependant, ce sont bien les 79 Maires qui disposent des pouvoirs de police de la circulation et qui sont donc les seuls compétents pour prendre

⁷⁸ Private vehicles are catalogued depending on their pollution levels. The stickers have a 1 to 5 scale, going from less to more polluting models.

⁷⁹ Was a team in charge of the set-up for the new metropolis.

les arrêtés qui réglementent la circulation ou le stationnement sur leur territoire” (Conseil Métropolitain, Délibération CM2017/12/08/10, 2018).

In the implementation of the low emission zones, the Metropolitan authority faces a twofold challenge: (1) as the deliberation acknowledges, to persuade all the 79 communes located inside the A86 highway perimeter to issue the restrictions (because the attribution is granted to the mayors) and (2) mediate between them and the city of Paris to agree on the terms under which the measure would be implemented. In short, the metropolis is in charge of coordinating the measure in a situation where power is dispersed within 79 communes and the city of Paris, with prevailing scale differences.

Before the adoption by the metropolitan council, the city of Paris placed its own restrictions. First, the municipality banned heavy duty trucks in 2015 and in 2017 imposed restrictions to the most polluting vehicles (rated 5 in the CRIt’air system scale). By July 2019 – the release date of the metropolitan low emission zones – the communes were supposed to set restrictions to category five while Paris did for number four. All the communes must catch-up with Paris in 2021 on restrictions to Crit’Air 4. The calendar goes till 2030, when the whole Greater Paris area aims to be completely fuel-free. To achieve such goal, it will be necessary to reconcile differences that are more related to scale than political affiliation. In other words, the fragmentations inside the metropolis pose a significant hindrance for a comprehensive low emission zone, less related to their partisan diversity, and more to local constituencies.

As map 5.1 shows not all the municipalities adopted the low emission zones. By July 2019, 49 out of 79 communes inside the A 86 perimeter (in yellow) subscribed to the agreement and issued restrictions. The remaining *communes* portray different positions. Some of them, as Montrouge in the south of Paris, held an ambiguous position claiming that its citizens support a low emission zone without enacting any restriction yet (till 2018) (Ville de Montrouge, 2020). Other communes oppose to the measure in the grounds of inequality. When looking at the map, the less engaged communes are those located further in the perimeter, predominantly in the east and north-east area, which are historically the less privileged localities. Such is the case of Bobigny, a northern municipality of the *petit couronne*, that openly rejects the measure. The commune is known as a “communist stronghold” after being ruled for over 100 years by the communist party. The current mayor, however, belongs to the center-right party *Union des démocrates et indépendants*. The particularity is that both groups (the mayor’s coalition and the communists), launched in unity the campaign “*Bobigny dit NON à la ZFE !*” (Bobigny says no to the LEZ!) to postpone the entry of the low emission zones. According to the mayor, their

reluctance arises from an unfair, excluding measure towards the poorest families. In the below quote, he reveals a tradeoff in which he favors social justice over better air quality,

“Nous sommes convaincus que la transformation écologique est une nécessité...mais comment accepter que les plus pauvres, dont nous faisons partie, soient privés de leur moyen de transport familial par manque de moyens économiques ? Nous nous mobiliserons pour défendre les plus défavorisés contre une transformation à marche forcée vers une Métropole moins polluante mais socialement injuste” (Ville de Bobigny, 2018).

Map 5.1 Low emission zone landscape in the Greater Paris Metropolis to December 2019.



Source: Métropole de Grand Paris

Their concern is clear. By indicating that they prefer social justice to a less polluting Metropolis, the municipal council is addressing to its constituencies. This reveals a scale difference that do not necessarily depends on the political orientation. Political groups inside Paris shared the concerns on the regressive features of the low emission zones. While the *Communiste-Front de gauche* coalition gives similar arguments to those raised by Bobigny's politicians, they supported the implementation of driving restrictions inside Paris. Didier Le Reste, from the communist party limits to indicate that his group agrees with the measure but that they need to palliate social inequalities by increasing governmental aid to change vehicles,

“Nous ne remettons pas en cause, bien naturellement, les décisions prises par les communes qui nous environnent, et nous voterons donc favorablement. Je voudrais faire une seconde remarque sur l'accessibilité sociale de cette mesure...Lorsqu'on connaît le prix des véhicules hybrides ou électriques et la faiblesse des aides qui sont proposées, difficile de croire que les propriétaires pourront changer de véhicule...Si la zone restreinte de circulation peut être un levier pour la transition écologique, son coût ne doit pas être supporté de manière individuelle et ce, d'autant plus que ce sont souvent les ménages les plus modestes qui ont le plus besoin de leur véhicule. Nous devons penser à ces salariés qui vivent loin de leur lieu de travail, rejetés hors de la grande couronne par les prix prohibitifs des loyers...Aujourd'hui, les aides qui sont proposées pour le changement de véhicule sont bien insuffisantes au regard du pouvoir d'achat de bon nombre d'automobilistes” (Débat Conseil Municipal, Février 2019).

Both examples demonstrate how the scale differences prevail regardless of the political orientation. Even if both coalitions pose similar critiques to the measure, their approaches contrast: local governments will tend to favor the perceived tradeoff – in this case between social development and air pollution – that fits best their constituencies. This shows that the different approaches do not strive in the party, as the communists are part of both depicted coalitions; it is related to their territorial needs. Institutional changes bringing new attributions to the *communes* didn't foster coordination processes; *au contraire*, they boosted preexistent differences associated to different municipal realities. This means that the distribution of power affects coordination processes due to scale differences.

This whole situation creates a deadlock. On the one hand, citizens from the poorest communes might not be able to drive into Paris and other neighboring municipalities that adopt the restrictions. On the other hand, if opposing communes such as Bobigny don't issue any restriction, it could have a negative effect in the metropolitan pollutant emission levels. Such

deadlock hinders policy effectiveness while keeps the territories politically stable with their constituencies. As the last part of this case study shows, the shared perspective between the City and the Metropolis creates an alliance where the latter sticks to Paris objectives and promotes the adoption of the low emission zones with the metropolitan communes.

5.5.1.1.1 Of disdain and alliances, the metropolitan struggle

Changes in planning competences and institutional ambiguities in air quality policy have reinforced a region-as-metropolis notion (see chapter 2). Regional planning was at first exclusively carried out by the State through the Île de France/ Paris Prefect until the '96 LAURE slightly increased the participation of the regional council on Air Quality and Urban Mobility plans. Subsequent changes brought by Grenelle and the *LOI n° 2004-809 du 13 août 2004 relative aux libertés et responsabilités locales* turned planning into a regional attribution with the State playing more a consultative role. In turn, local plans are subsidiary to regional objectives, placing the latter as general guidelines in charge of bringing out coherence throughout the region. These changes towards a more decentralized planning enhance the role of the region as the entity in charge of territorial cohesion. However, the reforms giving birth to the Métropole de Grand Paris – the MAPTAM act – created ambiguities that on the one hand reinforce the region's viewpoint, as the scale in charge of territorial coordination and give the *Métropole de Grand Paris* some competences in the same line.

On the one hand, the law assigned the new metropolitan authority – whose *raison d'être* is, in fact, to foster coordination – the competence to define and implement programs to fight atmospheric pollution (Art. 12, V). On the other hand, MAPTAM grants the region the responsibility “for organising, in a leading position [*chef de file*], the arrangements for joint action by local authorities for the exercise of their competences on... climate change, air quality and energy” (Art. 3 MAPTAM). These reforms give coordinating attributions to two entities, creating institutional ambiguities that open opportunities to lean the power balances. This is evident when we look at the text of the Regional Plan for Air Quality, appealing to the MAPTAM law that designates the region as *chef de file* on air quality,

“La Loi MAPTAM du 27 janvier 2014 a investi la Région de la responsabilité de chef de file pour le climat, la qualité de l'air, l'énergie et la biodiversité. A ce titre, la Région Île-de-France entend : Etre consultée sur les décisions locales qui ont un impact régional, en particulier en matière de restriction de la circulation (zone de circulation

restreinte), en veillant à respecter le droit à la mobilité des Franciliens et à ne pas porter préjudice aux activités économiques” (Conseil Régional d’Île de France, 2016, p. 1).

The quote exposes the region’s stand in two related ways. First, its title as *chef de file* grants it a coordinator role and, as such, it demands to be consulted whenever local decisions may have regional impacts, even if other localities don’t have the formal responsibility to do so. Without a precise definition for *chef de file* other than “coordinator”, the term can be interpreted in several ways. Second, the deliberation and the plan use other regional competences to support that claim. According to them, the region must ensure that local measures preserve mobility rights and do not hamper economic development, a regional competence. Using its position as *chef de file*, the region backs up its vision as the coordinating entity and denies the utility of the metropolitan institution. In the words of a high-level regional officer in the territorial cohesion and environment division, the region is the actor in charge of steering air quality policy and not the metropolis, which just complicates things,

“[L]a région elle est chef de file mais chef de file des collectivités. Ça veut dire qu'elle a été désignée comme étant celles qui n'ont pas forcément dans son action propre mais par coordination de l'ensemble des acteurs en lien avec l'état. [C]'est nous qui sommes chef de file, cela veut dire que c'est nous qui convoqueront les réunions, c'est nous qui réunissons tout le monde, c'est nous qui établissons des feuilles de route pour dire ben voilà qu'est-ce que les communes vont faire, qu'est-ce que les départements sont prêts à faire qu'est-ce que nous on va faire... la métropole n'apporte que complexification” (Interview 57).

Additionally, the quote preconizes the region’s steering role to set up the policy tone and the others must follow. The metropolis has no place in this scenario, it’s just a nuisance. And this regional perception is indistinct from the political party. As seen in Chapter 2, either socialist Jean-Paul Huchon or his right-wing successor and long-term political rival, Valérie Pécresse, share a similar perspective on the worthlessness of a Greater Paris. Such path dependent notion hampers almost any type of air quality-related joint action between the metropolis and the Region that can hardly be regulated by political orientations. Unlike the tense City-Region relationship where politics can lead to convergent approaches and find some room for negotiation (i.e., with the duo Huchon-Delanoë/Hidalgo), political orientation has no enhancing effect on the relationship between the metropolis and the Region. The fact that the

presidents of the metropolitan and regional council belonged till 2019⁸⁰ to the same party (*Les Republicains*) represented no leverage for joint action. In the view of a metropolitan officer in the division of environmental affairs, the region's perception towards the metropolitan institution frustrates any attempt to develop concerted actions,

“C’est beaucoup plus compliqué très honnêtement ... Il y a pleines de zones de friction et de frottement entre les deux institutions, et pour la région il y a aussi la perception de l’inutilité de la métropole en tant qu’institution dans un périmètre dans lequel ça créerait des disparités territoriales. Et donc voilà la métropole ...on essaye globalement de rester dans un travail en bonne intelligence avec la région mais il reste qu’il y a quand même une concurrence institutionnelle entre les deux grosses collectivités où la métropole voilà est légitime sur son périmètre et la région considère que le périmètre légitime d’une institution métropolitaine c’est l’échelle régionale, donc voilà c’est vraiment de lecture différente” (Interview 64).

The quote captures how the region's path-dependent self-conception as the real metropolitan institution affects the perception of the mutual dependencies. The region uses institutional ambiguities and its institutional mandate of territorial cohesion and economic development to reassert this view. If it considers that the *Métropole de Grand Paris* has no reason to be, then there is no acknowledgement of any kind regarding their mutual dependencies. Therefore, coordination processes between these two actors will most likely lead to breakups and conflicts.

5.5.1.2 The region's approach to the LEZ, trying to regain influence?

As previously shown, since the 2015 political changes, the region holds an adverse position towards driving restrictions. When it comes to the low emission zones, the Regional Council, emphasizes its “legitimate coordinator role” in air quality and demands to be consulted by the *collectivités* seeking to implement the measure due to its possible social and environmental effects. However, setting low emission zone restrictions is an exclusive municipal attribution embedded in a Metropolitan project. The below quote from the deliberation N° CR 114-16 shows how, in the absence of direct attributions, the region uses its coordinator role in combination with other regional competences to influence local policy,

“Rappelle la légitimité d’intervention de la Région et son rôle de coordination en matière de qualité de l’air et à ce titre : Demande à être consultée sur le contenu des plans d’actions et les mesures prises par des collectivités territoriales, notamment pour

⁸⁰ Until June 2019 when Valérie Pécresse left *les Republicains* to set a new political party, *Soyons libres*.

la mise en place de zones de circulation restreinte, pour en évaluer l'impact environnemental et social à l'échelle régionale" (Conseil Régional d'Île de France, 2016).

Once again, the regional council tries to take the reins of local policy, despite being a local attribution. When the project became a reality, Pécresse's critiques on driving restrictions were like the ones made to the riverbank roads affair, mostly related to regional inequalities. According to the regional executive, those who live furthest from the capital may suffer the most if the low emission zone initiative is not complemented by higher car replacement aids,

"Ce sont souvent ceux qui habitent le plus loin et qui n'ont pas les moyens de se rapprocher de la capitale qui ont aussi les véhicules les plus polluants. La sortie du diesel peut donc créer une vraie ségrégation, avec des conséquences sociales lourdes... Pour accompagner la mise en place des zones à basse émission où les véhicules polluants seront interdits, il faut doubler les aides à la conversion" (Schneider, 2018)

Nonetheless, the Region's approach is less categorical than in the Seine affair, where it completely opposed to driving restrictions. Both quotes show that instead of a firm resistance, it even subscribes the general idea. A first explanation is that the low emission zones comprise "milder" restrictions rather than a total circulation ban. However, this reasoning is less convincing if we consider the region's general view privileging road construction – in detriment of public transportation – and opposing to restrictions during pollution outbreaks. Instead, what makes the region to have a more positive account of the low emission zones and even try to take the policy further is its view as the "real" metropolis. As Valérie Pécresse stated, the region aims to extend the restrictions to the highway known as the *francilienne* to cover a greater area (see map 5.2): "pour nous la frontière de l'A 86 n'est pas pertinente. On voudrait que toutes les villes de la zone dense mènent la même stratégie" (Schneider, 2018). The reason for this is that according to regional officers, the right scale to implement the low emission zones is the Region itself, the "real" metropolis,

"nous ce qu'on dit c'est ok, il faut qu'on est une zone de faible émission mais qui soit à une échelle, à l'échelle de la région et surtout qu'on accompagne les habitants en tout cas les foyers qui sont les plus modestes à acquérir à renouveler leur voiture même avec une aide de l'état...notre philosophie c'est-il faut faire baisser les émissions...après c'est pas nous qui avons dit que on va faire une ZEF d'arrêt être uniquement sur la francilienne et on se fout du reste du monde. Nous on a une politique inclusive de toute

la région parce que la région elle est cohérente... notre volonté c'est de faire progresser la qualité de l'air dans toute la région, mais tout ce qu'on appelle nous la région métropolitaine, la bonne échelle de la métropole c'est l'Île de France" (Interview 57).

Expanding the restrictions outside the A86 highway, hence, outside the Metropolitan territory, would provide the region with steering capabilities over a larger perimeter, outweighing the MGP; at the same time, the collective action problem will intensify. Rather than trying to convince 79 municipalities, it would have to extend to a much wider radius (see Map 5.2). The ample diversity inside Île de France summed up to the fact that this is a municipal attribution would require a massive concertation process by the regional authority. And as chapter 7 shows, the regional institution does not excel in that area. While diverse hypotheses may arise, the region's general approach to driving restrictions and the political fragmentations, may indicate that the low emission zones at the *francilienne's* scale is hardly feasible. The region's claims to rescale the measure are instead efforts to position itself as the right metropolitan scale and keep control over the issue.

Map 5.2 The three principal ring roads in Île de France



Source: Direction des routes d'Île de France.⁸¹

⁸¹ Countournement Est de Roissy (19 janvier 2021). Obtained 31 may 2021 from: <http://www.dir.ile-de-france.developpement-durable.gouv.fr/countournement-est-de-roissy-a1360.html>

5.5.1.3 *Paris-metropolis alliance*

Exchanges between the city and the *Métropole* follow a completely different course due to the former's longstanding positive perception of the metropolis as the ideal scale to address territorial problems and common needs. As mentioned in Chapter 2, Bertrand Delanoë promoted the creation of the Metropolitan Conference, always with the latent idea to grant it with some competences in the future. Mayor Hidalgo continued such trend, manifesting that the future of Paris is *Grand Paris*, as “the most relevant scale for ensuring the coherence of urban planning and development policies” (Soucheyre, 2016). Besides its objective purpose to provide territorial coherence, the metropolis is instrumental to the city for spreading out to the *petit couronne* its projects and policies. Before the metropole's adoption of the low emission zones, Paris had already initiated its own restrictions and sought bring on board the surrounding communes. According to an advisor to the Deputy Mayor of Transports, the arrival of the metropolis was fundamental for such purpose, serving as a mean to explain the project and gain adepts with the neighboring localities. More than its territorial purpose, the city of Paris conceives the metropolis as the one in charge of diffusing and promoting Parisian policies,

“depuis que la métropole a décidé de mettre en place les ZFE on travaille aussi beaucoup avec eux parce que nous on a été beaucoup critiqués au départ quand on a commencé avant les autres sur la Low Emission Zone ... Quand on a pris nos premières décisions en 2014 on est allé chercher des alliés autour de chez nous. Enfin on a fait des réunions métropolitaines en réunissant tous les maires pour dire ce qu'on allait faire on a identifié nos alliés et on a essayé de avec ces gens-là de monter une alliance commune ... et après en 2016 est arrivée la Métropole du Grand Paris et du coup ça a pu créer une dynamique au sein de la Métropole du Grand Paris parce que c'était pas que Paris tout seul qui à l'expliquer à tout le monde, comme on vient faire ce que nous voisins nous reproche souvent c'est d'être un peu donneur de leçons. Là c'était pas que nous. Tout s'est dit là, qu'ils ont pu saisir la métropole en disant il faut travailler sur une zone de basse émission et c'est un peu comme ça en identifiant d'aller petit à petit qu'on a pu faire monter le sujet. Et là [Conseil métropolitain] nos alliés qui est Daniel Guiraud qui est et le maire des Lilas et est aujourd'hui le président de la commission environnement à métropole, et c'est lui qui porte la zone à faible émission” (Interview 48).

In the quote, the advisor considers the metropolis as an ally helping the city to expand its policy and to convince its neighbors who do not necessarily have always a good impression of the capital: “*nous voisins nous reproche souvent c'est d'être un peu donneur de leçons.*”

Institutional changes led to the creation of the *Métropole de Grand Paris*, a negotiator on behalf of Paris interests. The former shares a similar perspective regarding its instrumental role. According to a metropolitan officer from the environmental division, the *Métropole* helps Paris to engage in a dialogue with its local counterparts. For him, the metropolitan institution serves as an intermediary whenever the city wants to set up or extend its projects to a metropolitan scale,

“Le fait que la métropole existe ça aide la ville de Paris à se mettre en dialogue avec ses voisins parce que du coup ça lui permet de parler dans un environnement qui est plus apaisée où d'avantage dans un rapport de relative égalité à vis-à-vis des autres ... même si Paris n'est jamais égal vis-à-vis des collectivités mais en tout cas symboliquement. Il y a quelque chose de cet ordre-là donc par exemple quand Paris a des idées ou des projets à mettre en commun en général c'est à la métropole qui s'adresse d'abord pour dire voilà on aimerait bien faire ça et l'élargir ; on l'a fait à Paris et du coup on aimerait bien l'élargir à l'échelle de la métropole et parfois nous on va les voir pour leur dire vous avez fait un truc du coup ce serait bien de voir comment on peut l'étendre à l'échelle de la métropole” (Interview 64)

Both quotes are quite similar. The officers reveal the existence of a mutual perception acknowledging each other's roles, which helps to create a common policy understanding. They conform a mutually beneficial partnership making coordination possible at the metropolitan scale. On the one hand, the city counts with the metropolitan council and the assistance of the metropolitan officers to spread some of its projects to the neighboring municipalities. For the metropolis, the city of Paris represents a powerful ally, because it needs the city to fulfill its institutional mandate to achieve metropolitan territorial cohesion and to counterbalance the region. The implementation of the low emission zones is a good example of strategic interactions leading to positive coordination where the metropolis plays the role of mediator between the city and other metropolitan communes.

5.6 Conclusion

Let's go back to the issue of non-compliance with EU regulations mentioned in the chapter's introduction. If we match such policy failures with the analysis presented here, the inability to meet concrete policy targets – such as the European directives – is more a product of institutionalized domestic practices and political and institutional changes than a matter of institutional flaws of a top-down steering instrument. How is it possible to comply with the

regulations if, by exerting its attributions unilaterally, the city closes some roads and decreases internal pollution by displacing it to the neighboring communes? How would it be possible to comply if the region privileges car-use to public transport and devotes more resources to build roads? How would it be possible to meet the standards if there is a tradeoff between setting a low emission zone and social considerations linked to territorial differences without instruments to palliate inequalities? How to comply if restrictions are not timely implemented by the police prefect to end up pollution outbreaks due to economic and political calculations? Some other questions of this kind may arise regarding air pollution governance arrangements and their effects in air quality policy. They don't have an easy answer and the purpose here is not to give one. Instead, these questions raise awareness of the interaction dynamics in the Parisian region.

Air quality policy coordination in Paris has gone through two interaction sequences delimited by political changes in the Regional Council. The first one took place during the duo Huchon-Delanoë/Hidalgo, where the common problem's approach, enhanced by the green party presence at both levels, fostered coordinative discourses leading to negative coordination and some joint actions. Whereas gradual institutional changes increasingly granted the region with more powers to influence policy, they posed no threat to achieve coherent policies due to the convergent approach. However, once political conditions changed, the common approach fell apart, leading to conflict and incoherence between the city and the new region's government. Gradual institutional changes that rebalanced power were now a tool for the region to lean the power balance in its favor.

During pollution peaks, the *référentiel* of central control, institutional changes, and politics affected the interactions. Despite the changes in crisis management protocols, the State remains as the most powerful actor on the issue, unwilling to give away its control on decision-making processes related to driving restrictions. Moreover, the State acts also as an invisible hand. It has the power to make the protocol changes it deems necessary. This is the inheritance of a strong State and its historical strategic control over the city of Paris that does not want to let go. This has effects in coordination because the State seems to be more open to decision-making, but it keeps acting unilaterally, considering its own economic and political calculations. As of the city-region relationships, the case demonstrated that when political conditions changed, the institutionalized perception on regional equality prevailed. In the absence of a common approach, incentives, or any other instrument to foster interdependencies,

the Region behaved strategically to enforce its approach and used its competences to finish with free public transport.

In the Seine riverbank roads affair, different approaches to the problem without political convergence plus the attribution to act unilaterally hindered any type of coordination. The system gives incentives to unilateral actions without necessarily carrying out previous concertation. Even more so, it sets the ground for strategic actions to protect each other's interests. The city of Paris made use of its attributions to close the riverbanks roads and follow a political project no matter the outside consequences. On the other hand, the outsiders, such as the metropolitan communes, departments and the Region tried to block the closure because that will affect their population either in their way to Paris or by displacing pollution to their territories. Therefore, they catalogue city's actions as egoistic for unilaterally taking decisions that have wider impacts. Conversely, the city perceives other actors as interventionists. In the words of a former advisor to the mayor: "on sait que Mme Pécresse est très interventionniste et notamment dans la question de fermeture des voies sur berges [the riverbank roads affair] et toutes les questions climatiques, en général très interventionniste" (Interview 76).

Finally, the Low Emission Zones case shows how the new competence on driving restrictions led to interactions regulated by the problem's approach. In the absence of incentives to coordinate, the problem's view divided the governance arrangements in two. One side was formed by the city, the *Métropole de Grand Paris* (MGP) and half the metropolitan communes favoring the restrictions and the evolving calendar. On the other side, were the Region and the rest of the communes that were against the implementation of the measure. The Region used its institutional mandate of territorial equality as an argument to oppose a measure that is contrary to its approach to the problem (related to car-use). In this case, political orientations had no impact to regulate the relationship between the MGP and the Region. The Region's longtime perception as the "real metropolis", reinforced by ambiguities and institutional changes hinders any type of joint work with the metropolitan authority due to the fear of losing its zone of influence. We can establish that in this case, scale differences outweigh any type of political party convergence.

Introduction to Part III – Climate change policy coordination in Mexico City and Paris

If the number of actors was a differentiating factor between both cities in air quality policy, it is less important in climate change coordination processes. Part II showed how each actor represented an open front for the city of Paris, where institutional, cognitive, and political factors led to differentiated coordination processes, all of them inserted in a specific policy dynamic. In contrast, the Mexico City's case showed that less actors can create a more unified logic of interaction based on the risk of reputational harms. However, in climate policy, governance arrangements for both cases changed: Mexico City interacted with the organized civil society, international organizations and only marginally with the federal government; while in Paris, the State keeps a steering role, and the city barely interacts with the *Métropole de Grand Paris*, leaving the region and other actors aside. What explains the radical change in Paris? Why did the number of open fronts in Paris decreased to barely two? The explanation lies in the temporal and cognitive dimensions of the problem.

Climate change is a “type two crisis” representing a “gradually deteriorating situation” (see page 47 in the general introduction), thus it lacks a sense of urgency despite its catastrophic effects. This perception of climate change as a slow onset problem, added to the State's piecemeal subnational engagement led to different adoption timings between the city of Paris, the region and other *francilienne* communes and departments. The result: the city stood itself as a pioneer in climate policy, enhancing its environmental policy capacities, leading to mismatches with other subnational actors. In consequence, Paris developed a notion of isolated development, according to which it doesn't need other actors to develop its climate measures.

Additionally, the city defines the climate problem as global, rather than a territorialized issue, where actions must be developed at a metropolitan level. In the city's logic, all the local greenhouse gas mitigation efforts contribute to meet the country's targets but more importantly, have a global outreach. Therefore, Parisian and *Grand Paris* actions sum up to alleviate a worldwide problem.

In Mexico City, the climate problem got into national and local agendas during the city's transition to a more autonomous entity. Climate change arrived separately in both levels, therefore, due to the problem's novelty, there were no previous policy ties that could help to bridge the changes. Climate policy began with a disconnection, which later got reinforced by the low interest of the federal government in the topic and continuous political struggles.

Instead of forging federal links, the city worked with the non- governmental sector and international organizations to foster its policies. By the time the federal government regained climate interest and the political differences were smoothed out, it was just too late: the city had already built an organizational and institutional structure, making it capable to develop climate-related measures on its own, creating a notion of isolated development.

In this case the number and type of interactions, or the “open fronts”, cannot be dissociated from the time and cognitive dimensions. Interactions within climate governance arrangements are defined only in relation to the precise problem’s timing in relation to political and institutional transformations (in the case of Mexico), its pace, in terms of its sense of urgency and the different adoption timings, and its territorial conception (in the Parisian case). This led to define how the actors conceive their mutual dependencies. As both chapters show, coordination processes in climate policy could be hardly understood without acknowledging a joint conception of time, problem definitions and structure.

Moving to the State and Federal government’s influence (depending on the case), the central control *référentiel* is still evident in both cases. In Paris, the State keeps a steering role through policy instruments with the purpose to orient subnational actions to meet national climate mitigation objectives. Air quality practices reproduced in the Mexico City’s case with the federal government trying to regain policy control through funding. The federal Secretary of Environment and Natural Resources (SEMARNAT) has the power to decide the allocation of resources from an environmental fund according to its own considerations.

To analyze climate policy coordination processes, chapters 6 and 7 focus on emission mitigation actions coming from transport and energy sectors, with a special emphasis on planning. Climate Change is a broad, trans-sectorial problem, caused by the concentration of greenhouse gases (GHG) in the atmosphere; the measures directed to decrease the amount of those emissions to the atmosphere are known as mitigation policies (UNFCCC, 2021). As mentioned in the introduction, the main source of world’s GHG is energy (76%), and cities are the main contributors producing 60% of those emissions. In Mexico, energy as a whole is the main GHG source with 71,1% of the total emissions (SEMARNAT & INECC, 2018). Two sectors within this category generate half of the country’s GHG emissions: 24.5% for transport and 25.9% for energy generation (SEMARNAT & INECC, 2018). In France, energy has a similar share of total GHG emissions (70%), with transport representing 30% of the country’s total (French Government, 2021). The rest comes from the residential and tertiary sectors

(19%), manufacturing and construction industry (12%), and only 9% derive from energy generation.

At the city level the main GHG source is transport representing 74% in Mexico City (SEDEMA, 2018) and 52% in Paris (Ville de Paris, 2020). These proportions merit some precisions. First, both include air transport that is entirely a central attribution. If we remove such category to focus only on road transport, the distribution changes to 69% in Mexico City and 19% in Paris. The range is even wider. However, there is still an issue with the measurement methodologies. In Paris, food consumption represents a similar share to transport, with 17% of the total GHG emissions. Mexico City's inventories do not consider such criterion. Chances are that if included, transport figures would change abruptly. Therefore, just for illustrative purposes, if we remove food consumption in Paris, road transport soars to a share of 37% of the total GHG emissions.

Measurement divergences are one example of the “fuzziness” or wickedness of the climate problem. Its sources and effects can be found in a wide array of activities from many sectors. For this reason, the two chapters try to make sense of the interactions by focusing on the abovementioned sectors and consider more comprehensive instruments, entirely related to climate change such as emission inventories, plans, strategies and funding. Moreover, just as the monitoring criteria, they vary in both cities.

Chapter 6. Multi-level politics in a city of contradictions. Climate Change Policy Coordination in Mexico City.

6.1 Introduction

Nelson Mandela once said, “True reconciliation does not consist in merely forgetting the past”.⁸² With the risk of taking Mandela’s words out of context, his phrase gives an overview of climate change policy coordination dynamics between Mexico City and the Federal Government. The policy arrived at Mexico City in a turbulent period when the city and the national government held serious political disagreements, up to the point that the then President, Vicente Fox, backed up an impeachment procedure to remove the mayor (and current president), Andrés Manuel López Obrador. Political disputes lasted for more than a decade, going beyond Fox’s and Obrador’s terms. When the city and the federal government finally eased their differences, it was just too late to start developing joint actions. Of course, Mandela was not thinking on climate policy in Mexico City when he coined the phrase, but his words give a good account of the interactions: both entities might have forgot the past, but never completely reconciled.

National-local politics is, however, just the point of departure to explain the coordination processes of climate policy governance arrangements in Mexico City. While it is behind the long-lasting separation between both levels, the general dynamics are more complex than that. To understand climate policy coordination in Mexico City, one must look and the multi-level and urban governance dimensions that follow two separate but related paths. Let’s begin with the multi-level dimension, divided into the two coordination sequences depicted in figure 6.1. The first one is characterized by the abovementioned national-local political disputes, during which the city built on capacities, placing itself as a local and Latin American frontrunner. Evidence shows that for 12 years (2000-2012) the city achieved its mayor breakthroughs without any type of intervention from the federal government. When both governments mildly reconciled their differences, it was too late for climate policy because by then, national and local actions were already running in parallel.

The second interaction sequence begins with the approval of the General Law of Climate Change at the national level. The law was supposed to foster vertical coordination by defining more clearly the attributions of subnational and federal governments and delineating

⁸² Statement of the National Executive Committee of the ANC on the Occasion of the 84th Anniversary of the African National Congress: January 8 1996.

interaction areas through technical cooperation, funding, and the installation of a coordination body – the National System of Climate Change. However, due to institutional flaws, path dependencies and the attribution system, the law fell short to meet the task and even widened the interaction gap. Institutional flaws refer to the lack of incentives and enforcement mechanisms in the coordinating body and funding allocation. On the one hand, meetings in the National System are not required to reach any type of binding agreement, limiting the reunions to show federal government's actions with some participation of other local governments. Funding operates under the federal government's control, resulting from the centralist global *référentiel*, making it more an instrument of ephemeral central steering than a generator of interdependencies.

In the grounds of technical cooperation, the longstanding capacity building during the previous sequence, and the expertise coming from air quality policy, both refrain the city from exchanges in that subject. The Climate Law sets the obligation for subnational governments to elaborate their territorial plans and their greenhouse gas (GHG) emission inventories, encouraging technical cooperation between the federal agencies and subnational governments. Both tasks, however, were covered by the city long before the law's adoption. The city elaborated the first greenhouse gas registries in the early 2000's, using the expertise gained by elaborating its atmospheric pollution inventories since the end 80's. Regarding planning, Mexico City formulated its climate plan in 2008, advancing all the local governments at the national and even Latin American scales. As a longstanding frontrunner due to its capacity development, the city has no need for technical exchanges and limits to comply with the law's requirements. Paradoxically, by fulfilling the tasks that intended to coordinate the actors, they limit their actions to attribution compliance.

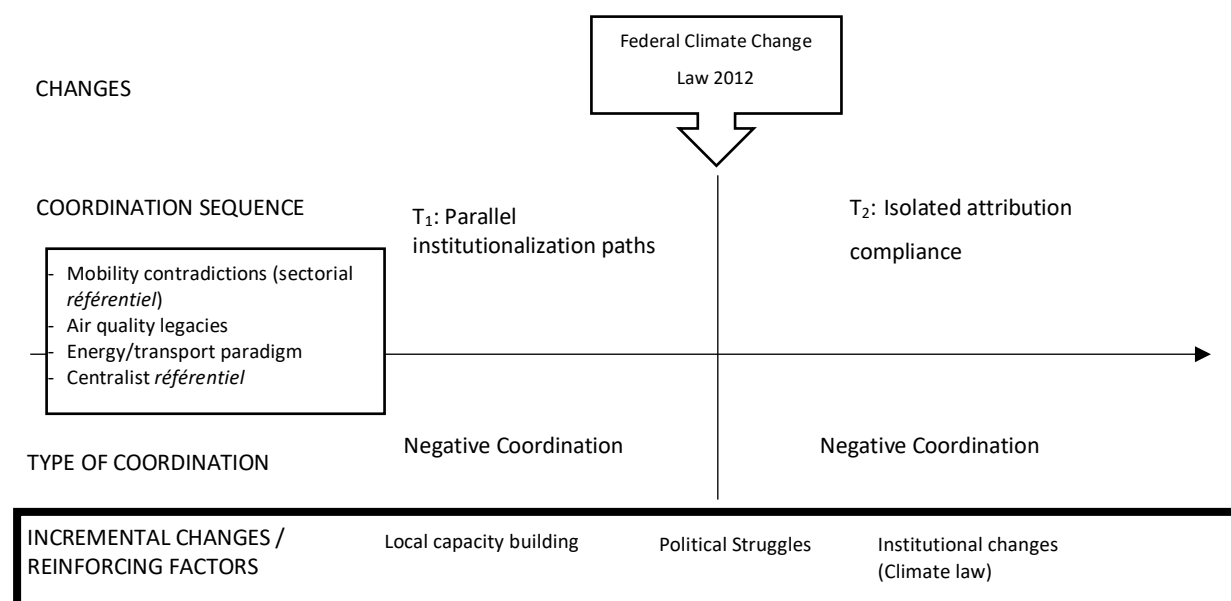
A last element hindering coordination is the problem's approach within the policy paradigm regarding the two main greenhouse gas emission sectors: energy generation and transport. Energy as a whole is the main GHG source in the country with 71,1% of the total emissions (SEMARNAT & INECC, 2018). Two sectors of this category generate half of the country's GHG emissions: 24.5% for transport and 25.9% for energy generation (SEMARNAT & INECC, 2018). At the local level, transport is the preponderant GHG source, accounting for 74% of the city's total CO₂ eq. emissions (SEDEMA, 2018). As seen in chapter 4, transport is predominantly a local attribution, while energy generation has been historically a federal competence. The allocation of both attributions defines the main focus of each government level regarding climate change mitigation. For the federal government, greenhouse gas

reduction is a positive externality of the country's energetic transition and not a goal in itself. Energy has longtime been a federal competence until a series of recent reforms opened possibility for local action in energy generation. Despite those changes, the paradigm is that the competence belongs to the federation and only until recently Mexico City introduced strategy for renewable energies. Conversely, mitigation measures in the city focus on transport, a local competence where the federal government has barely any involvement regarding the CO₂ emissions. The different problem approaches due to the current paradigm is thus the last factor hindering joint work possibilities in both domains.

The urban governance and international dimensions derive from the contentious nature of the national-local relationship and financial pressures. Facing the impossibility to get funding and technical expertise from the federal government, the city had to look elsewhere for those resources. As the chapter this situation encouraged the city to look for local and international partners to implement some of its climate-related policies. However, interactions with those actors characterize by cooperation and conflict due to a city's persistent contradiction between advances in environmental policy and unsustainable practices such as the promotion of car-use.

The chapter is divided into three parts. The first one shows the initial developments of climate policy, pointing to the original policy disconnection and the lack of interest from the federal government to include the subnational levels. Section number two depicts the continuation of this separation, leading to the first interaction sequence, where multi-level politics is the main explanation for the absence of joint action. In the third section, the chapter presents the second interaction sequence, where policy capacities, air quality policy legacies, institutional flaws and cognitive factors explain the processes leading to negative coordination.

Figure 6.1 Coordination sequences in climate change policy in Mexico City



Source: Own elaboration

6.2 Inconsistent federal actions and a differentiating city

6.2.1 A national problem in a context of transformations

Since the first international developments of climate policy in the early nineties Mexico has been an active participant. During the preparatory negotiations to the '92 Rio Summit, the country, along with Brazil, demanded the inclusion of developing countries in climate matters. The country later headed – without much success – a working group to discuss general principles of greenhouse gas reduction targets (Bodansky, 1994). These works, together with the adoption of the United Nations Framework Convention on Climate Change (UNFCCC) triggered the first concrete domestic actions led by the scientific community (National Autonomous University of Mexico in combination with the National Institute of Ecology), such as a GHG inventory and climate vulnerability studies (Pulver, 2009). This path, however, has not been completely straightforward. While the early nineties could be catalogued as a (short) period of “increasing policy momentum” (Pulver, 2009), the reality is that until the mid 2000’s, climate policy was low in the federal government’s priorities (Sosa-Rodriguez, 2014), affecting the development of a nationwide climate policy involving subnational actors. Three combined elements explain this. First, the Kyoto protocol (ratified by the Senate in 2000) didn’t set any binding GHG reduction targets to developing countries (also called Non-Annex I countries), giving few incentives to commit to more substantive, coordinated actions (Solorio,

2021). The second factor is ministerial politics. In the context of the Kyoto Protocol negotiations, the Environment (SEMARNAP), Energy and Industry and Commerce (SENER and SECOFI) Secretaries disagreed on the country's path towards GHG reductions (SEMARNAT, 2012). On the one hand, SEMARNAP was concerned with the country's actions to mitigate and adapt to climate change and, on the other, the Secretaries of Energy and of Industry and Commerce focused on "the potential adverse effects of international GHG regulations on Mexico's oil economy" (Pulver, 2009, p. 32). To overcome these differences and to foster joint work, the federal government installed the Intersectoral Committee for Climate Change, involving seven secretaries (Sánchez Gutiérrez, Lucatello, & Ceccon Rocha, 2009).⁸³ As an informal coordinating body, the committee achieved limited results. Its main product, the National Climate Action Strategy, was mainly "a series of government policies that directly or indirectly impact on emission reductions" (INE & SEMARNAP, 1999, p. 13), without concrete targets or foreseen actions leading to climate change mitigation. Besides some already ongoing air quality related measures, the strategy does not point to specific actions for the city or any other subnational government.

In third place, political changes in the year 2000 slowed down the already reduced actions, yet subnational participation was far from being considered. During the first years of Vicente Fox's administration, climate change was not a high priority. For instance, the incoming government discarded a National Climate Program draft prepared by SEMARNAP and the National Institute of Ecology (INE) during Zedillo's last year in office (Pulver, 2009). Additionally, the National Institute of Ecology, one of the leading organizations in the environmental sector was restructured, taking away its policy functions (related to environmental regulation) to become a research institute supporting the renamed Secretary of Environment and Natural Resources-SEMARNAT⁸⁴ and the federal government. International events also impacted negatively in the government's interest in climate change policy. Due to the close ties with the U.S. under the North American Free Trade Agreement (NAFTA), the Mexican government expected to develop projects with the country resulting from the Kyoto Protocol's Clean Development Mechanisms (Commission for Environmental Cooperation, 2001).⁸⁵ However, the U.S.

⁸³ The secretaries were: Environment, Energy, Commerce and Industrial Development, Foreign Relations, Communications and Transports, Social Development and Agriculture and Rural Development.

⁸⁴ The Secretary changed its name because the competence on fisheries (pesca) was transferred to the Secretary of Agriculture.

⁸⁵ The Clean Development Mechanisms are instruments allowing countries with emission reduction commitments (or developed) to implement projects in non-Annex 1 countries (developing) to assist them in achieving sustainable development and reducing emissions (UNFCCC, 1997).

withdrawal from the agreement in 2001 waned Mexican aspirations to benefit from that instrument. Probably, the period's mayor achievement was the formalization of the intersectoral coordinating body, now called the Inter-ministerial Commission for Climate Change, mainly focused on the Clean Development Mechanism projects and on developing a consultative process towards a national climate strategy (SEMARNAT, 2012). These measures, however, did not reach the subnational levels with any policy or legal instrument.

6.2.2 Meanwhile in the city...

In Mexico City the story is quite different. Political changes brought by the 1996 constitutional reforms fostered the issue saliency in two ways. First, these changes gave the Legislative Assembly⁸⁶ attributions to legislate on environmental matters. Even if a climate law was more than a decade away, this meant that legislators from different political forces could pronounce themselves on the issue or even submit bills in environmental matters.⁸⁷ This was the case of the independent representative Alejandro Rojas Díaz Durán that while submitting a reform to the local environmental law, he indicated that “we face a changing world, a world that mutates even in its climate” (Legislative Assembly Journal of Debates 1997 in Maqueda Rojo, 2015, p. 97). Other expositions during the 1997-2000 legislature go in that sense, acknowledging the “great problems of global change such as the greenhouse effect”(Maqueda Rojo, 2015, p. 97).

Additionally, the newly elected Mayor, Cuauhtémoc Cárdenas named Alejandro Encinas, a left-wing politician experienced in environmental affairs, as the Secretary of Environment. Encinas was part of the Mexican delegation that participated in the 1992 Rio Earth Summit and presided the delegations in the UN Conferences Habitat I and II in Vancouver and Nairobi, respectively (SIL, 2021). As an experienced officer in sustainability affairs, Encinas urged the legislative assembly for an environmental law that allowed the construction of a long-term environmental policy (Maqueda Rojo, 2015). Moreover, the then Secretary acknowledged – mainly discursively – that in order to achieve sustainable development goals, “the ministries and governmental environmental commissions must reinforce their regulatory capacity while fostering coordination between programs and actions in this matter, whereas something equally crucial is its integration and coordination with the rest of public policies”(Encinas, 2000, p. 29).

⁸⁶ Before the 2018 Mexico City's constitution, the Mexico City Congress was known as the Legislative Assembly.

⁸⁷ Before the 1996 reform the former Assembly of Representatives had the attribution to set secondary rules such as banns, ordinances and regulations subject to federal level laws and norms.

These elements did not represent immediate sustainability or climate-related actions at the city level. What they do show is that under new political conditions those issues became more salient. Further political changes delineated a new state of the affairs, leading to a piecemeal development of a local climate policy in the years to come. From the year 2000 onwards, national and local climate policy followed two disconnected parallel paths that stick out till 2018. The two following terms – Andrés Manuel López Obrador (2000-2006) and Marcelo Ebrard (2006-2012) – would be crucial to such process, culminating in 2011 with the publication of the Law for the Mitigation and Adaptation to Climate Change and Sustainable Development for the D.F. (Ley de Mitigación y Adaptación al Cambio Climático y Desarrollo Sustentable para el D.F.).

6.3 Reinforcing the original disconnection

6.3.1 Climate policy in a city of contradictions

During the 2000-2006 period the city outperformed the federal government in climate-related actions. In contrast to the federal government, López Obrador's local development plan aimed to "expand the environmental agenda to include issues that have been barely addressed such as ...climate change" (D.F., 2000, p. 76). In that sense, the plan argued the following,

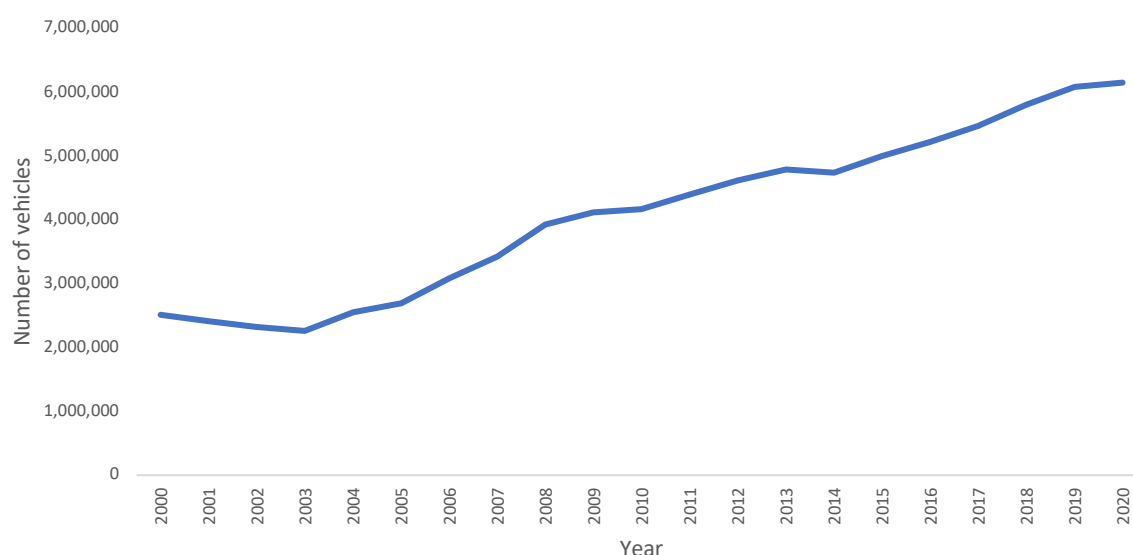
"under the idea that the global environmental problems must be faced at the local scale, the elaboration of a climate action program of the D.F. will be encouraged, additionally, the mitigation of gases contributing to the greenhouse effect will be promoted through regulation, the efficient use of equipment and a wider use of renewable energy sources, as well as reforestation destined to capture carbon" (D.F., 2000, p. 78).

The plan shows that there is a clear recognition of climate change as a public problem, and even lists a comprehensive strategy, as well as some policy instruments to address it. However, as this section shows, the nascent climate policy was embedded in a series of local contradictions. On the one hand, the local development plan innovated by recognizing a new problem, plus, as shown below, the government partnered with international organizations and NGOs to develop low-carbon initiatives (such as the Bus Rapid Transport System), and even carried out organizational restructurings to create a climate office. On the other hand, the local government implemented "environmental unfriendly actions" that fostered the car-use. This contradiction led to conflicts with the federal government and even some of the NGOs with which the city partnered to develop low-carbon measures. Climate policy in this sense takes place in a city of contradictions.

6.3.1.1 Environmentally “unfriendly” measures leading to conflict

Local climate interest contrasted with other highly criticized actions due to their negative environmental impacts, such as the construction of the city’s ring road second level. Commonly known as the *Periférico*, it is the main freeway and point of entry for the more than 6 million vehicles that circulate daily in the city (Graph 6.1). This issue created conflicts with local and federal actors. The federal Secretary of Environment and Natural Resources, Victor Lichtinger indicated that the project was against the goals promoted by the Air Quality Programs, Proaire (Critica Lichtinger construcción de segundos pisos; Sheinbaum la defiende, 2001) and even threatened to take the issue to the courts due to alleged environmental damages entailed by the construction works (Bravo, 2002). His declarations must be contextualized due to the disputes between the city and the federal government that went beyond sustainability. The relationship between Vicente Fox and Andrés Manuel López Obrador was confrontational and with continuous disagreements, up to the point that the local branch of PAN (Fox’s party) promoted an impeachment procedure to remove the mayor, which was actively backed up by the president. These events meant that, without previous actions locking up any type of interactions (such as in air quality policy, see chapter 4), political disputes of this kind became factor leading to the disconnection between local and national climate policies.

Graph 6.1 Number of vehicles in circulation in Mexico City per year



Source: INEGI (2021).

The local legislative also opposed to the project and demanded its suspension to the mayor because it would incentivize car-use in detriment of public transport and increase pollution

levels (González Santiago, 2002). Indeed, studies show that new highways have short term results by decreasing traffic (in the first 5 years) but in the long term this effect fades away because the new roads incentivize car-use (Hansen & Huang, 1997). One of the main “containers” (to use Cobb and Coughlin’s term to represent opposers to a change in the status quo (1998)) was the then local independent congresswoman, and future local Secretary of Environment, Martha Delgado. She argued that the ring road’s second level “shows an interest to foster car-use instead of reengineering public transport with direct benefits to the bulk of the population, against 20% that has private car” (Delgado, 2004). Other actors such as NGOs and the Nobel Prize laureate Mario Molina – with whom the local Secretary of Environment, Claudia Sheinbaum, contributed to elaborate Mexico City’s air quality assessment (see Molina & Molina, 2002b) – opposed to the project arguing that instead of these kind of actions, the government should promote the use of public transport (K. Soriano, 2002). Despite the opposition coming from different fronts, the city’s government proceeded to build the second stage and even expanded it in the next term. This action contrasts with the city’s first steps towards the adoption of a more explicit climate policy. As shown later, this is a recurrent feature, not limited to López Obrador’s term, but inserted in a more general dynamic of contradictions, or sectorial paradigm between sustainability and car-based mobility.

6.3.1.2 Understanding the contradiction: A major infrastructure development and entry-level climate measures

How is it then possible to understand the development of a climate policy in Mexico City? The profile and role of Claudia Sheinbaum – López Obrador’s appointee for the Secretary of Environment – provides an answer to this question. As one of the mayor’s closest collaborators, she shared his position towards the car-use.⁸⁸ For instance, she actively defended the city’s government actions in the the *periférico*’s affair when the Mayor named her as the main project supervisor. In this role she took over the attributions of the Secretary of Public Works and Services in what could have been a move to appease the criticisms related to the work’s environmental impact.⁸⁹ Such position contrasts with her academic career. With a Ph.D. in energy engineering (UNAM-UC Berkeley), she has carried out research on environment, energy, and sustainability (Posada de la Concha, 2010). Due to her track record, the

⁸⁸ Claudia Sheinbaum was one of the founding members of the PRD and has always mixed her academic and political careers. In 2006 she joined López Obrador’s first presidential campaign as her spokesperson and by 2012, in his second campaign, AMLO appointed her as Secretary of Environment and Natural Resources in case he won. When AMLO left the PRD to found a new party, Morena, Sheinbaum followed him.

⁸⁹ Without reliable data to corroborate that, this rests as an assumption made by the author.

Intergovernmental Panel on Climate Change (IPCC) named Sheinbaum as a contributing author of its reports, a feature publicized by the City's government as a "member of the IPCC that in 2007 obtained the Nobel Peace Prize" (CDMX, 2021).⁹⁰ Her academic activities and commitment with environmental research explain why, despite Sheinbaum's role in the ring road construction, she made climate change a more visible issue in the city.

Under her administration, it was the first time that the Secretary had an office exclusively devoted to climate matters, the Deputy Direction for Environmental Management and Climate Change. Its initial functions were to evaluate and implement local climate change policy and to coordinate with federal authorities (SEDEMA, 2002). Later on, this office took an active role in the elaboration of the first comprehensive effort exclusively dedicated to address the issue, the D.F.'s Local Climate Action Strategy. Despite its novelty – or probably because of it – the strategy was mostly a compilation actions already in place by the administration, placing them under a "climate tag", and arguing on their contribution to GHG mitigation. The main idea of the document was to "set the ground" for more concrete future actions. In that way, after reviewing the strategy it didn't have any concrete emission targets or any other precise indicator. Instead, it delineated some desired courses of action, one of which was the elaboration of a proper Climate Action Plan (DF, 2004, p. 17). The plan wouldn't be ready until the next term, by 2008.

Besides organizational restructuring and the first concrete notions of climate policy integration, probably the most important achievement in terms of low-carbon, sustainable mobility was the creation of the Bus Rapid Transport system (BRT), *Metrobús*. BRTs are bus-based transit systems that provide faster and cost-effective services through the provision of dedicated lanes with busways and stations (ITDP, 2021). According to the Institute for Transport and Development Policy, one of the worldwide leading NGOs in mobility consultancy and research, "BRT contains features similar to a light rail or metro system, it is much more reliable, convenient and faster than regular bus services" (2021), reducing significantly global transport sector emissions. According to Flores Dewey (2016, 2019), Sheinbaum's academic connections from the International Energy Agency, which were also involved in the previous Colombia's BRT system, *Transmilenio*, encouraged her to set a similar strategy in Mexico City to alleviate transport-originated pollution.

⁹⁰ According to the BBC, Sheinbaum was a contributing author and not co-author of the award-winning report. This distinction is important because coauthors received a certificate as active "contributors to the IPCC report that was awarded with the Nobel Peace Prize in 2007".

Now one of Mexico City's flagship projects in mobility and GHG emission reduction (Sheinbaum, 2015), the BRT was originally framed as a measure to improve air quality, evidencing the influence of that domain in climate policy. The 2002-2010 Program to Improve Air Quality in the Mexico City's Metropolitan Area conceived the BRT as an emission reduction strategy to introduce cleaner vehicles and set up exclusive road corridors for public transport (see PROAIRE 2, p. 8.38). Indeed, there is no reference in PROAIRE 2 that the project was directed to reduce GHG emissions. However, nowadays the metrobus is considered a "low-carbon, climate change mitigating project" (Francke, Macías, & Schmid, 2012, p. 19). In other words, its framing changed.

For instance, the World Bank, one of the original project's contributors through the Global Environmental Fund, tagged the BRT as a "climate friendly measure in transport", orienting its focus as a mitigation action. Additionally, its co-benefits lead to replace 1,108 highly polluting buses, reducing 107,257 tons of CO₂ eq during its first three years of operation (Francke et al., 2012). Interviewed public officers from the *Metrobús* system also acknowledged that its actions are more related to GHG mitigation than to air quality. When asked about the system's contribution to each domain, they indicated that it was "part of the same thing" (Interview 42); however, they explained that for air quality they just report their actions to PROAIRE, whereas regarding climate change they got into more detail. In addition to reporting their contributions related with the Climate Action Plan, they said that originally the project got certified into the Clean Development Mechanism from the UNFCCC and have an agreement with the World Bank and the Spanish Carbon Fund to sell carbon bonds to the latter (Interviews 42 and 43). Originally conceived as an air quality measure, *Metrobús* found a better fit in climate policy and is widely recognized as a GHG mitigation measure (Ang & Marchal, 2013; Flores Dewey, 2019; Francke et al., 2012; Valenzuela, 2014) with air quality positive externalities. Put it differently, air quality motivated the BRT system, creating a solution that later joined the climate problem.

Besides showing the influence of other problems in climate mitigation efforts, the BRT mobilization process reveals two other things: (1) the city's contradictions between climate and mobility actions and (2) the underlying interactions and conflicts with the federal government, international organizations, and the non-governmental sector. When the project began, the local government had several ongoing transport and mobility-related financial commitments due to the ring road's works (*Periférico*), and new subway trains. Thus, without being one of its priorities, the mayor conditioned Sheinbaum his go-ahead to get funding from abroad (Flores

Dewey, 2019) because the federal funds were out of the picture. The federal government usually fund these kind public transport projects. For example, in 2009 contributed with 1,500 million pesos (around 100 million dollars at that time) to fund the Metro line 12 (Pardo & Vázquez, 2018). However, at that time, due to the federal government's low interest in climate issues and the abovementioned political disputes, the city had to look elsewhere for financial resources.

Without federal support, the secretary secured funds and technical partnerships from academic, non-governmental, and international actors such as Colegio de México (a renowned Higher Education and Research Center), UNAM's Institute of Engineering, the Hewlett Foundation, the World Bank, the Shell Foundation (through the World Resources Institute and its Center for Sustainable Transport, CTS-EMBARQ), and the Japan Policy and Human Resources Development Fund (Sheinbaum, 2015; Valenzuela, 2014; World Bank, 2021; WRI, 2021). The partnerships reveal the city's disconnection with the federal government by developing mitigation actions without its involvement.

Interactions with non-governmental actors insert into the city's contradictions or incoherencies between sustainable and car-based mobility, fluctuating between coordination and conflict. Chronicles of the early stages of *Metrobús* highlight the involvement of not just the funding institutions (i.e. the World Bank or the Hewlett Foundation) or technical consultants (CTS-EMBARQ), but also NGOs such as the Mexican Center for Environmental Law (Centro Mexicano de Derecho Ambiental- CEMDA), one of the oldest environmental NGOs in Mexico (Baranda, 2015). Being a supporter of this project, the organization fiercely opposed to the road ring second stages (see next section). Martha Delgado – the future local Secretary of Environment – held a similar stand. As harsh critic of the car use, she condemned *periferico's* works and supported the BRT as president of the NGO *Presencia Ciudadana Mexicana* (Delgado, 2004).

The absence of interactions between the federal and city's governments in the first climate-related actions leads to two assumptions. First, it reveals how the low interest of the federal government led to national-local disconnection during this first period. Without any kind of national leadership committed with the problem, and in the absence of binding emission reduction targets, the federal government had no motivation to set a local climate change

agenda. In other contexts, such as France, GHG reduction targets were a reason to include subnational governments (as seen in the next chapter).

Second, it allows to make a counterfactual argument: in the absence of the '96 institutional changes, the city would still be part of the federal government, thus political changes would not have taken place therefore climate policy would have appeared much later in Mexico City's agenda, probably after 2006. Moreover, there are no indicators of a local leadership involved in the issue before the arrival of Encinas or Sheinbaum. Put it differently, the issue's low saliency at the federal level is evidence that institutional changes in the second half of the 90s were the main factor behind the city overrunning the federal government in climate-related measures.

With the arrival of new public office holders, the city took the lead and started developing capacities and concrete projects. Despite its contradictions, Sheinbaum's leadership led to concrete local actions, advancing all the other local governments in the country. In fact, in the third communication to the UNFCCC, the federal government recognized the city's actions as one of the main activities carried out in the country to mitigate climate change (INE & SEMARNAT, 2007). Nonetheless, in the absence of local emission reduction targets, indicators, or specific norms it's difficult to talk about a consolidation or concrete climate policy direction. This process would take place with the 2006 incoming city's administration.

6.3.2 Institutionalizing climate policy in the city and reinforcing the parallel paths

In 2006 the PRD once again won the local elections, representing more continuity than change for climate policy. While it reached its consolidation with the incoming mayor, Marcelo Ebrard, climate policy kept operating under the same scheme: with persistent contradictions surrounding environment and mobility and separated from federal actions because of political struggles. These features reinforced the "original" national-local breakup from Obrador's term, widening the gap between both levels. During the separation time, the city kept growing its capacities, overrunning all the other government levels, including the federal. This section develops such features that in turn serve as an explanation for current coordination processes. As the chapter later shows, capacity development created a coordination constraint because it led to a local notion of isolated development where the city realized that it didn't need any other government level to fulfill its objectives.

6.3.2.1 *Of perennial contradictions*

Let's start this explanation with a (reproduced) contradiction. Ebrard named Martha Delgado, an environmental activist and former independent local congresswoman, as the Secretary of Environment. Once a fierce opponent to the city's ring road works, Delgado had now to align with similar activities taking place in the new administration. In this case she was not in charge of the construction works but as the head of the Environmental sector, she had to issue an environmental impact study, leading to the approval or rejection of the project. She did the former. Opposition parties, environmental NGOs and political activists pointed out such inconsistencies (Viale, 2010). In the words of an NGO member, this represented Delgado's breakup with the environmentalist community,

“The relationship deteriorated significantly, and the truth is that we didn't have a good relationship with her [Delgado]. When the issue of the second stage came up, she [Delgado] had to accept it. As part of Ebrard's government, she had to remain silent, whereas when she was part of the civil society, she wrote some columns against the second stages. So, we made her see that publicly, saying that she had written about it. That made her very angry...” (Interview 34)

Another critical voice highlighting Delgado's incongruencies was Andres Lajous⁹¹, political and mobility activist at that time and later appointed as Secretary of Mobility by the current Mexico City Mayor, Claudia Sheinbaum (2018-2024). Well, as an activist, Lajous criticized Delgado for initially promoting public transport and the reduction of car space and endorsing later the second stage projects (this time, it was about another section of the *periférico* plus a new road called the *Supervía*). He went further to criticize the lack of coherence between the actual measures and the city's positioning on climate change,

“What is most troubling about Delgado is that she reveals Marcelo Ebrard's broader contradictions and most undesirable methods. On the one hand he lobbies to chair the World Mayor's Council on Climate Change and, on the other hand he prioritizes car use” (Lajous, 2010).

What Lajous calls “Ebrard's broader contradictions” are in fact an intrinsic characteristic of the city, not necessarily attainable to a particular Mexico City's mayor. Lajous himself is proof

⁹¹ Andrés Lajous is a well-known political activist in Mexico City. Before taking office in Mexico City's administration, he actively participated in campaigns and panels on sustainable mobility and urbanism. He holds a Master Degree in Urban Planning from MIT and is Ph.D. candidate in sociology at Princeton University (SEMOVI, 2021).

of that (and before him, Delgado, and before her, Sheinbaum). Now, as Secretary of Mobility, his position towards new roads has moderated and remains somewhat similar as Sheinbaum and Delgado's. When asked on his opinion about a project to build a road that connects the city with the new airport but is parallel to another, recently inaugurated highway, he indicated,

“We have to revise all the projects. I understand that this is considered as a need for Santa Lucía [the new airport]... It's worth looking into how traffic flows towards the north of the city, considering that *Siervo de la Nación* [the new highway] is ready... and goes in the same direction to Santa Lucía. We want to make our evaluation. It will be evaluated with a technical opinion but at first sight it seems that part of that demand is covered with the *Siervo de la Nación*” (Zamarrón, 2019)

The current secretary is more cautious on his approach to new roads, however, still contrasts with his past criticisms. This brief detour to highlight Lajous' position reveals two related aspects of the city's environmental politics and policymaking. First, there is a pattern in the actor's roles that align with a general political project. Authors such as Alison (1969) or Miles (1978) used the maxim “where you stand is where you sit” to stress how the actor's policy positions are in some part determined by their organizational role. In this case, the also called Miles Law applies because the organizational position is tied to a political project of the mayor in turn. In second place, while this feature is more the norm than an exception of local politics, it is the visible aspect of what seems to be a perennial contradiction in a city that vows for more car space, and, in parallel, progresses towards sustainable, low emission practices. After the '97 political changes, and more vigorously since the 2000 elections, the city has gone along this path, building on incoherencies. Contradictions are part of the policy paradigm in which two incoherent legacies – sustainability transitions and car-based mobility – coexist since the year 2000.

6.3.2.2 *Enhancing local capacities and achieving a leadership status*

Inserted in these contradictions, climate policy reached its most active phase with Mayor Ebrard. At the organizational level, the Secretary was once again restructured and the office in charge of climate policy became in 2006 the Direction for Climate Change and Sustainability Projects. Major breakthroughs, however, took place at the planning level. The incoming government's environmental program, the Mexico City's Environmental Agenda, placed climate change as one of its mayor concerns, delineating some actions to meet the general objective of reducing GHG emissions. One of them was the development of the Climate Action

Plan. Before that, the issue was one of the main subjects of the long-term instrument, the 2007-2022 Green Plan.

The Green Plan's approach was alike the previous Climate Strategy, by "supporting the actions from mobility, water, air, public space, waste and energy that lead to a decrease in GHG emissions" (CDMX, 2010). Climate change was still part of a wider sustainability notion: "The Green Plan is the DF's government mid-term path that contains the strategies and actions to put Mexico City towards sustainability" (GDF, 2007). In this case, the plan's climate actions had more specific objectives – such as 11% energy saving in the subway system operations, or the substitution of 6,000 public lightbulbs with low consumption lamps – without concrete *ex ante* emission reduction targets (although, in the progress reports each action was linked *ex post* to its concrete quantitative contribution to GHG reduction (see D.F., 2011)). Despite not being its primary focus, the Green Plan set the ground for actions that will contribute to reduce GHG emissions – such as the metrobus extension, construction of biking lanes and the shared biking *eco bici* program, one of Ebrard's landmarks – and to the development of a local Climate Action Plan in 2008, the first of its kind for a Latin American city (Quiroz Benítez, 2013).

The new local climate plan (2008-2012) introduced for the first time a GHG target, setting as its main goal to reduce 7 million tons of CO₂ in the 2008-2012 period through a series of actions in diverse topics (i.e. energy, water, transport). To coordinate its implementation, a local decree created the Interinstitutional Commission, composed by all the local secretaries and agencies, presided by the Secretary of the Environment. According to the city's government, the plan's coordinated actions reduced six million CO₂ tons, representing a 4.5% decrease in total GHG emissions (CDMX, 2021). Opinions in this matter are mixed. As the programs' evaluation noted, the extent to which it accomplished such goal is unclear. Despite high compliance levels of the plan's activities by 2012, the lack of mitigation objectives per action hampered any possibility to estimate its progress (Centro Mario Molina, 2012).

Either way, these actions were a key marketing asset to gain international recognition, positioning the city as a world leader in fighting climate change. For instance, Ebrard presided the World Mayors Council on Climate Change in 2009 as a "recognition to Mexico City's efforts to reduce its pollutant gas emissions" (UNDRR, 2015). As chairman, he took a leading position in the 2010 World Mayors Summit on Climate in Mexico where mayors from 70 cities signed the Mexico City Pact – Global Cities Covenant on Climate, committing to reduce GHG emissions. In that meeting, the United Nations Officer for Risk Reduction named Ebrard as "Champion" of the *Making Cities Resilient* Campaign for his leadership to build resilience "at

a time when the cost of disasters is expected to rise significantly because of climate change” (UNDRR, 2010). All these actions also contributed to get him the World Mayor prize in 2010. The mayor kept an active role in other forums to demand global climate action. For example, he pointed to the developed countries and the World Bank’s underinvestment in climate change mitigation efforts (Hernández & Arreola, 2012).



Marcelo Ebrard receiving the World Mayor Prize. Source: World Mayor. Retrieved October 14, 2021 from (http://www.worldmayor.com/contest_2014/world-mayor-prize-winners.html)

In 2011 the issue reached its highest point with the Law for the Mitigation and Adaptation to Climate Change and Sustainable Development for the Federal District. Local deputies from PAN, PRD, and the Green Ecologist Party (Partido Verde Ecologista Mexicano-PVEM) submitted in 2010 their own bills, prevailing the one promoted by Alejandra Barrales, from the PRD. Whereas the local Congress ostensibly developed the law, Barrales was a close collaborator of Ebrard. She was Secretary of Tourism (2006-2008) and later became president of the local PRD branch. The press even pointed her as Ebrard’s choice to succeed him in Mexico City’s Government (Mendoza & Ramírez, 2011), though, she lost in the internal PRDs process to Miguel Ángel Mancera. Barrales then got a spot in the Senate, something that, in Ebrard’s words “would be a very good idea...would be extraordinary” (“Sería “extraordinario” ver a Barrales en Senado: Ebrard”, 2012).

The tight connections between the local legislative and executive branches reveal, once again, the above-mentioned environment-mobility contradictions linked to a political project. This contrast is made evident by the activism from the organized civil society. Some NGOs, such as CEMDA had an active participation on the climate bill, endorsing PRD’s (Barrales) final project (Maqueda Rojo, 2015). At the same time, CEMDA was an active opponent to the

supervía, promoting legal recourses that could lead to its termination (Alfie C., 2013). In that sense, Barrales position was similar to Delgado's (and Sheinbaum, and Lajous), endorsing both, the *supervía* project, and the climate law. The law was a win-win for the PRD legislative group and the local administration. On the one hand, it would help to give another impulse to the government's climate agenda, and on the other, its saliency would add up to Barrales' political aspirations. Besides its political implications, the law culminated the uprising trend of local climate policy with its publication in 2011.

Since the first climate policy conceptions, the city placed itself ahead of all the other local governments in Mexico, as a Latin American leader, and a global player. This trend at the city level matched a regained interest from the federal government in climate matters. With the arrival of Felipe Calderón (National Action Party) at the presidency, national climate policy experienced a major shift. The country won back its international presence through intense activism by developing nationwide planning instruments, and formally institutionalizing the policy through the 2012 General Law of Climate Change. It seemed to be the right time for both levels to develop some joint actions. It wasn't.

6.3.2.3 *Once again, politics get in the way*

President Felipe Calderón's personal commitments and prospective policy strategy reinstalled climate policy momentum. According to Torres Ramírez (2013), Calderón's decision to reinstate the country's leadership responded to a personal belief of reconciling economic development and environmental preservation. This view fitted with the rising importance of the issue in the global agenda, opening a window of opportunity to bring the country back to the international scene. The main showcase was the organization of the COP 16 in Cancún, representing the highest point of Mexican global climate activism to show the country's capacity to redirect the negotiations after the COP 15 fiasco.⁹² In addition to the president's beliefs, other factors, such as the possibilities to gain global competitiveness by improving the country's energetic efficiency, the growing knowledge on the climate problem, and its future worrisome effects for Mexico, contributed to keep the issue at the top of the priority list (Torres Ramírez, 2013).

⁹² It took place in Copenhagen where world leaders intended to discuss the future of the Kyoto Protocol. However, it was a fiasco: China was not willing to accept any type of supervision; Europe refused to increase its GHG reduction objectives; the U.S. was not committed to "go too far"; and African countries demanded more funds without ensuring financial transparency. The result were weak, non-mandatory and non-binding commitments (Böhme, 2009).

Calderon's international activism mirrored domestic changes that, however, didn't acknowledge the subnational role or any kind of interaction with the city, which in turn had already developed a set of policy capacities. For the first time, the National Development Plan – the most important planning document at the federal level – included specific actions to address climate change mitigation, leading to the elaboration of a National Strategy and later, in 2008, to a Special Program on Climate Change. With these documents it was also the first time that the country adopted voluntary mid and long-term GHG emission reduction targets for 2020 (-20%) and 2050 (-50%).⁹³ All these actions had little influence on the interactions with the city. As shown above, by this time the city already developed its local plan and was in the path towards the publication of the local climate law. Moreover, few federal actions considered local involvement. For example, in the Special Program, measures towards subnational governments were mostly related to strengthening capacities to elaborate local climate plans and emission inventories (Objectives 4.2.1 and 4.4.1), a field already covered by the City.⁹⁴

National climate policy reached its highest point in 2012 with the General Law of Climate Change. Besides the formal policy institutionalization, the instrument brings novel developments for its coordination, highlighting the principles of integration, transversality and multi-level cooperation and coordination (Art. 26). The law, however, reflects the centralist tradition by leaving the steering role to the federal government. For instance, the specific attributions to subnational governments must be aligned to the National Program and Strategy. Additionally, their emission inventories should be jointly elaborated with the National Institute of Ecology and Climate Change (formerly the National Institute of Ecology). To foster a continuous multi-level interaction, the law created the National System of Climate Change, chaired by the federal Secretary of Environment and Natural Resources and integrated by the Inter-ministerial Commission, all the government levels and Congress members. Additionally, the system members can have access to funding through the establishment of a Climate Change Fund (controlled by the federal government). As the next section shows, despite the National System and the definition of other interaction areas, climate policy rarely goes beyond negative coordination.

All these instruments and actions carried out by the federal government contrasted abruptly with the previous period and matched the city's activism in the issue. However, the fact that

⁹³ Baseline year 2000.

⁹⁴ The city elaborates its own GHG emission inventories since 2012 and has experience measuring emissions due to its longtime involvement in air quality policy. This is further explored in the following sections.

both governments had a climate agenda was not enough to develop joint actions. Which factors then account for the lack of interaction? A first explanation would be the federal government's pragmatic position. By 2006 the city's share of national GHG emissions was around 5.5%, out of which nearly half was (43%) was attributed to transport (DF, 2008), a local competence. Additionally, the city was building more roads, giving incentives for private car use. This means that in terms of competences, the federal government couldn't do much to decrease the city's emissions and may focus its resources on other sources of its jurisdiction. Moreover, the transport issue was already addressed by the air quality policy through the so-called PROAIRES and followed its own dynamics. Even in this situation, supporting the city's actions would add up to the voluntary GHG emission reduction and help Calderon to strengthen even more the country's profile in the international landscape.

A second explanation lies on politics. Andrés Manuel López Obrador lost to Felipe Calderón in the 2006 presidential elections with a reduced margin of 243,934 votes, a difference of 0.62% (35.91% VS 35.29%), leading the PRD's candidate to disqualify the process and mobilize his supporters to demand a vote recount (Aparicio, 2009). Protesters closed one of the city's main roads, *Paseo de la Reforma*, for 48 days until the Electoral Court ruled in favor of Calderon. Even if protests stopped, the election results and following events polarized the country and affected the relationship between the incoming mayor, Marcelo Ebrard (PRD) and the newly elected president. As one of López Obrador closest collaborators, Ebrard actively participated in the protests and refused to accept the "imposition of Calderón as President" (González Alvarado, 2006). Right after the elections, he criticized the PAN's candidate for opposing the vote recount, indicating that "Calderón is afraid. A democrat cannot oppose to a vote recount. The only thing that he demonstrates is that he is afraid of the vote count and that the outcome does not favors him" (Proceso, 2006). Calderón's party responded that they regretted the city would be once again under a "factious leadership", governed by a gang (Proceso, 2006).

Such situation kept interactions to its minimum, up to the point that the press kept record of all the possible encounters between Calderón and Ebrard and whether they would shake their hands. There was some expectancy of both appearing together in a picture during the COP 16 in Cancún (Ramos, 2010). However, some left-wing legislators accused the federal government for allegedly cancelling Ebrard's participation (Saldierna & Enciso, 2010). As local public officer acknowledges, political conflicts transcended the mediatic attention to impact federal-local relations, making difficult to develop any kind of joint-action,

“In this country it’s a problem when PAN is in power and it doesn’t talk to PRD and they fight each other. And a perfect example was Ebrard with Calderón. There was no way. We couldn’t seat in a table because we fought, there were no communication lines. It was horrible. There was no way to negotiate anything” (Interview 7).

The much-expected hand shake finally happened four and a half years after they both took office (see picture below) (Melgar, 2011) and shortly after, they cohosted events such as the inauguration of the Subway Line 12 (Macías & Rosas, 2012). While exchanges were less confrontational, the events took place by the end of their term once that climate policy was formally into local and national agendas and both levels were implementing their policies separately. The main point of evidencing the separation and the parallel actions is to state that ever since its first developments, federal and local climate policies were completely disconnected. During this separation period the city created an international reputation and developed capacities and expertise in climate policy, both contributing factors to its isolated development. As the next section shows, this original climate policy separation persists and has even been reinforced by institutional flaws and different problem framings.



Felipe Calderón and Marcelo Ebrard shaking hands in 2011. Source: El Universal. Retrieved October 13, 2021 from https://fotos.eluniversal.com.mx/coleccion/muestra_fotogaleria.html?idgal=11081

6.4 Institutional changes without the expected outcomes

Institutional changes taking place under Calderon’s government sought to change the climate policy landscape by placing the issue in the National Development Plan and setting concrete GHG reduction targets. Most importantly, the country had now a law delineating competences

and concrete climate policy instruments. Additionally, the General Climate Law sought to foster vertical coordination through four concurrent areas in GHG mitigation: planning, emission measuring, funding and a coordinating body, the National System of Climate Change. However, as this section shows, they fail to foster the interactions that could lead to coordination. Institutional flaws and the centralist legacy hamper funding processes and the coordinating body, while the city's longtime gained expertise in emission reporting and planning prevents it to coordinate with other actors under the argument that they don't need them to fulfill their formal obligations.

6.4.1 Institutional constraints and centralist legacies

With the purpose of fostering vertical coordination, the 2012 climate law created the National System of Climate Change, chaired by the Secretary of Environment and Natural Resources and integrated by the INECC, the Inter-ministerial Commission, all the government levels (States and Municipalities) and Congress members.⁹⁵ It is supposed to promote policy coherence through the alignment of federal and subnational actions with the National Strategy and Special Program of Climate Change (LGCC, Art. 39). Moreover, the system should focus on the analysis and implementation of the policy instruments set by the law (such as the climate fund, the emission inventories and planning). The coordinating body, however, misses those points and serves only as an information hub to communicate some policy developments. In other words, it is mostly a declarative forum rather than a policy instrument fostering coordination.

This assumption comes from the analysis of the system proceedings since its installation, in 2014, and till 2018. Solorio (2021) found that most of the meetings were devoted to explain legal arrangements and international agreements. A closer look to these documents reasserts those findings and reveals that meetings are mostly discursive, where the actors present information related to their activities rather than getting to concrete agreements to foster vertical coherence. For example, in the 2017 meeting the National Institute of Ecology and Climate Change presented an analysis of the state's share to the National Determined Contribution (non-binding national climate actions and greenhouse gas reduction targets to achieve the goals set in the Paris Agreement) and highlighted its main results, without any further agreement (SEMARNAT, 2014-2018). Mexico City's government participated in 2018 to inform about its role in C40 with some ongoing projects, its progress in their local plan and

⁹⁵ Municipalities are present through their associations' representatives from the three mayor municipal associations: FENAMM, ANAC and AALMAC.

the need to mitigate GHG emissions (SEMARNAT, 2014-2018). Most interventions are of this kind, without agreements related to concrete policy strategies going beyond mere presentations of what the actors are doing.

Interactions within the system do not go further mainly due to its institutional design. While the law set it as the main mechanism to promote policy coordination, there is no need to reach any agreement during the meetings. It is enough to delineate some topics in the meeting's agenda, controlled by SEMARNAT. In this case, any member can propose topics to discuss, but according to the system rules, its agenda insertion depends on the system's coordinator, SEMARNAT. Therefore, without any capability to take on agreements and the federal government controlling the agenda access, the body has little impact on fostering joint actions among its members. This is, according to the area in charge of environmental policy integration at the federal level, the main problem with such type of councils or commissions, that they mostly work at the political level without any binding commitments (Interview 1).

Such perception is reasserted in the city's administration. According to the local Secretary of Environment, they don't have an active participation in the system and there are no agreements coming from that body (Interview 7). Facing the system's institutional flaws, both, the city and the Federal Government center their interactions in their competences granted by law. To the question on how interactions take place, respondents at both levels refer to attribution compliance. In the words of SEDEMA officers: "If we have the obligation, we must do it and we do it. Mexico City is exemplar in that sense. We have good disposition. There is a strong disconnection though" (Interview 7). Moreover, because of its early incursion in climate policy, city officials argue that they carried out their main competences even before the federal law was issued,

"We comply with the national law. The General Climate Change Law says that the states must have their climate action plan, but we have it before the law was even published. We must have inventories and we've been doing them for many years before the law was published. We must have an Intersectoral Commission, the same. That's what's been happening" (Interview 10).

Similarly, federal officers see the distribution of competences as the common thread behind climate policy interactions. To the question on which actions should be developed jointly, a top-level officer at SEMARNAT indicated that attributions on climate matters are clear in the Constitution and the General Law. The interpretation of this is that climate change policy

coordination is defined as the distribution of competences. In this logic, if all the actors do what they have to, then policy will be coordinated (such as the fragmentations approach to coordination mentioned in the introduction). Despite this rigid view of coordination as attribution compliance, the fonctionnaire highlights the relevance of funding as a coordination recourse,

“In climate affairs, the common thread for the relationship with Mexico City comes from the General Climate Change Law. It establishes what the federation has to do, what the states have to do, what municipalities have to do... Attributions are clear. If you check carefully the General Climate Change Law and the Constitution, attributions are clear on everything related to climate change. The issue is that at some point you have to interact. I think that funding could be a common thread that helps you to sum up federal and local governments. Funding eases some actions already contemplated in the policy and makes coordination easier” (Interview 12).

In fact, the General Climate Change Law created a funding instrument to support the implementation of actions to face climate change (Art. 80). Two of its main destinations are mitigation actions contained in local plans (Art. 82-III) and studies and evaluations required by the National System of Climate Change, comprising also local governments. As a federally financed instrument, the fund's operation is exclusively defined by the national government through a technical committee headed by the Secretary of Environment and Natural Resources (Arts. 81 & 84). In other words, the decision on whether some projects are to be financed by the fund rests on the federal government. Therefore, its potential to create interdependencies or to coordinate through its resources is limited to the national government's will. Just as the Parisian case shows (next chapter), the fund is a policy steering device, activated whenever the federal government seeks to fulfill its objectives. When asked about the interactions with the federal government, a high-level public officer from the local Secretary of Environment, highlighted that funding of this type is the only means of coordination with the federal government. The local administration shares the federal perception and also points that funding is an instrument enabled by the federal government,

“Our relationship with the federal government is basically to get resources; basically when the federal government offers us those resources. Sometimes we ask for the money after a previous approach between the local and federal secretaries. Then, they offer us some money, or either we know about some call and then both organizations establish a connection. Sometimes they have interest in endorsing a project. The federal

government says “we are interested in these type of projects, propose one to us”... Basically this is it, I have no other interaction” (Interview 7).

A review of the available records from the fund’s committee proceedings in the 2015-2018 period reveals that three projects in Mexico City were selected for funding.⁹⁶ Therefore, the instrument in this case forges interdependencies leading to coordination without necessarily an institutionalized pattern for the interactions. On the contrary, interactions remain incidental whether the initiative is taken either by the federal government looking to fund some projects or even by the city, as SEMARNAT officers indicate. For a top-level federal fonctionnaire in charge of climate change policy, common projects are sometimes even conceived as a coincidence, without necessarily being initiated at the national level,

“Where there is a higher level of interaction with them [Mexico City] and other entities it is mostly at the project level. It’s not that there is formally a unique origin. Sometimes it’s just a life coincidence. Even if it’s not in formal meetings convened by them or us. Sometimes, ideas come out just after chatting. It’s not that only the federation is looking for the states. It’s more organic, what makes it simpler. On many occasions, when we are in a meeting, we realize that we are thinking on working in the same things. It may arise from either party” (Interview 12).

Whether the city or the federal government make the first move, joint work around this instrument will only take place if the latter is interested in financing a particular type of project. By holding the fund’s control, SEMARNAT has the last word on its destination. The fund’s technical committee, presided by SEMARNAT and composed exclusively by other federal secretaries, delineates the type of projects they want to support. The law defines this feature, allocating the attribution at the national level, thus leaving at their discretion the type of relationship they will have with other local governments. Coordination depends on whether local actors share the federal view and not the other way around. Thus, the “coincidence” is more a local alignment to federal priorities that can be negotiated. The abovementioned federal officer acknowledges this fact by explaining the fund’s operation,

“The climate change fund is administered by SEMARNAT. Nevertheless, the logic comes from issues and competences coming from the law and that can include a project on low emission public transport in Mexico City. How can you get involved and make

⁹⁶ Initially they were four projects but one for an amount of \$30,300,000.00 pesos (around 1.5 million USD) was cancelled.

things easier? Well, if we have some resources in that fund you can issue a call of local projects for low emission public transport and then, Mexico City's government through the local secretary apply for that. The conversations that we have with them allow us to identify the things that could be worth doing... The technical committee defines which are the priorities and where does the money go and then we launch the calls. Till now it has been like that, we give the financial support for some things" (Interview 12).

The above quote confirms the centralist legacy in policymaking. As stated before, funding seems to be the main (if not the only) coordination form. If decision-making on funding remains at the federal level, then the operation of this policy instrument reveals how some coordination processes remain centrally controlled. In other words, the global *référentiel* of central control guides sectorial policy.

6.4.2 A leading, non-interdependent city building on air quality legacies

According to the General Climate Law, subnational governments must collaborate with the National Institute of Ecology and Climate Change for the elaboration and integration of their emission inventory (Art. 8-XII). They must provide the institute and the Federal Secretary of Environment and Natural Resources with all the information "related to the categories of emission sources" within their respective jurisdictions (Art. 75). Such data feeds the national emissions inventory and the National Emissions Registry (also known as RENE). Without much interaction with the Institute or the Federal Secretary, Mexico City fully complies with this obligation since 2015 when it first reported its 2014 emissions (SEDEMA, 2018). A high-level officer from the National Institute for Ecology and Climate Change acknowledges that the organization has an institutionalized relationship with Mexico City mostly regarding air quality and environmental contingencies,

"The relationship with Mexico City is fully institutionalized. It's good in the sense that we have communication. But that communication is mostly limited to eventualities regarding environmental contingencies" (Interview 5).

Whereas in climate matters, the relationship is mostly a formal obligation without much substance or general guidelines leading to more concrete actions,

"I think that [the relationship with Mexico City] is mostly a formality, to comply, to "check a box" that we actually met. The discussion, joint analysis, agreements upon a basic diagnosis, a baseline, where their programs are effectively oriented towards a national vision, is still missing" (Interview 5).

The lack of interaction with the Institute regarding the emission inventories is the result of the city's pioneering work on GHG measurements. Such practice was in turn developed by the longtime data collection of air pollutants. First versions of pollution inventories date from 1989 and served as inputs for the Air Quality Programs (PICCA and PROAIRE) (CAM, 1999). Greenhouse gas measurements (mainly CO₂) appeared for the first time in the 1998 air pollutant inventory version (elaborated in 2000). By 2008 the city edited its first inventory exclusively dedicated to collect the 2006 GHG measurements, and from 2012 onwards both types of emissions (GHG and air pollutants) are published together. The expertise coming from air pollution data collection is locally acknowledged, being the General Direction of Air Quality the one in charge of the GHG emission inventory (instead of the climate change area). Initially, this task was in hands of the latter, however, they recognized the air quality direction's expertise on pollutant emission inventories and ended up transferring the attribution to that area,

“We did the first emission inventory but later we said, “well, there is an area in charge of inventories that has 20 years making pollutant inventories, then, they should do it”.

Therefore, the area specialized in inventories, does the inventories” (Interview 10).

Such a legacy coming from air quality policy provided the city with a solution for a future climate problem. The accumulated expertise placed Mexico City in a frontrunning position in that field, without any need of technical cooperation with the federal-level institute. INECC coordinates with subnational governments through signed agreements⁹⁷; till these days “there is no agreement with Mexico City. It hasn't been an issue of concern for any of the parties” (Interview 5). An employee from INECC acknowledges that indeed “the objective of this institute is to generate technical information to support decision-making”; if “in climate change affairs the law does not establish a compromise other than technical guidance” (Interview 6), then there is no motivation to work altogether with a city that already accounts with the technical capacities. From the city's perspective, the expertise gained so far puts it in a leading position, without any need for technical guidance. To the question on how the interaction with the INECC develops, respondents from the emission inventory in Mexico City area indicate

⁹⁷ Two examples are Estado de México (<https://www.gob.mx/inecc/prensa/inecc-y-el-inecc-firman-convenio-de-colaboracion-para-generar-difundir-conocimiento-e-implementar-acciones-frente-al-cambio-climatico?idiom=es>) and Jalisco (https://transparencia.info.jalisco.gob.mx/sites/default/files/5-Convenio%20espex%C3%ADfico%20INECC-Jalisco%202017_0.pdf). Sites consulted on April 21, 2021.

that it's limited to exchange some information. It doesn't go further because due to their expertise, they are mostly self-sufficient,

“[With INECC] we basically address the issue of the emission inventories. For example, it's their task to make the [national] GHG inventory and we gather all the pollutants, there is where we have some links. Generally, we are always more advanced, and we apply the models faster, we make more inventories. Sometimes they can ask for information, or they share some with us, just in case they have new data, but generally we are self-sufficient in that subject” (Interview 18).

The city's self-sense of non-mutual dependency due to its technical capabilities limits interactions to formal compliance with attributions granted by the federal climate law. In other words, the developed capacities limited the interdependencies between the city and the federal level. This aspect is reproduced in planning – another attribution granted by the Climate Law – where the city has been ahead of the federal government. As seen below, the issue first appeared in López Obrador's development program, leading to a local climate strategy which, a few years later turned into a Climate Action Plan with concrete (although incomplete) emission targets. Such contributions were even highlighted by the federal authorities in the country's communication to the UNFCCC. The perception of the city as a technically qualified entity remains in SEMARNAT. In the words of a top-level officer: “People from SEDEMA knows the issue perfectly, they know what they're doing. Their approach is correct. Methodologically it's very well developed, they know what they're talking about” (Interview 12).

Following the same line of thought, local fonctionnaires stress that their longstanding expertise on the matter puts the city ahead of all the other actors. The city does its part fulfilling formal obligations: reporting their emission data, developing local planning instruments and even in passing local legislation. With all these issues covered, Mexico City's own view as a domestic leader, formulating and carrying out its own instruments and actions, sets it apart from other government levels. There is little or no need of others to meet local emission targets or other climate-related objectives. According to the local Direction of Climate Change,

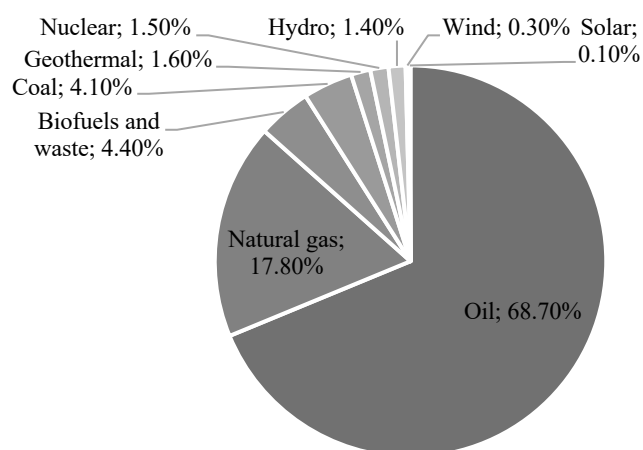
“What happens with the federal government is that we have generally being one step ahead from both, the federal government and the most advanced states. We were pioneers in having an area of Climate Change, in having an emission inventory. We were pioneers in having an Interinstitutional Commission. We were pioneers in having

a Climate Change Law. At some point we were the pioneers in having a Climate Strategy. With all this, we boast of being one step ahead. In that way, I dare to say that we have maintained the leadership for many years. Now there are many actors, ten years ago we were practically on our own” (Interview 10).

6.4.3 Each to their own trade. Fragmented competences and different framings.

Mexico relies heavily in fossil sources for energy production. As Figure 6.2 shows, in 2015 oil was the main energy source with 67.8%, followed by natural gas (17.8%). In contrast, only 10% of the total energy production came from “clean sources” (such as solar, wind, geothermal, and nuclear). The marginal participation of renewable energies makes the country highly dependent on the oil markets. As a major oil producer, Mexico has relied in its own reserves and production, which in the past years has represented a problem as both indicators have consistently decreased (Graphs 6.2 and 6.3).

Figure 6.2 Sources of Energy Production in Mexico, 2015

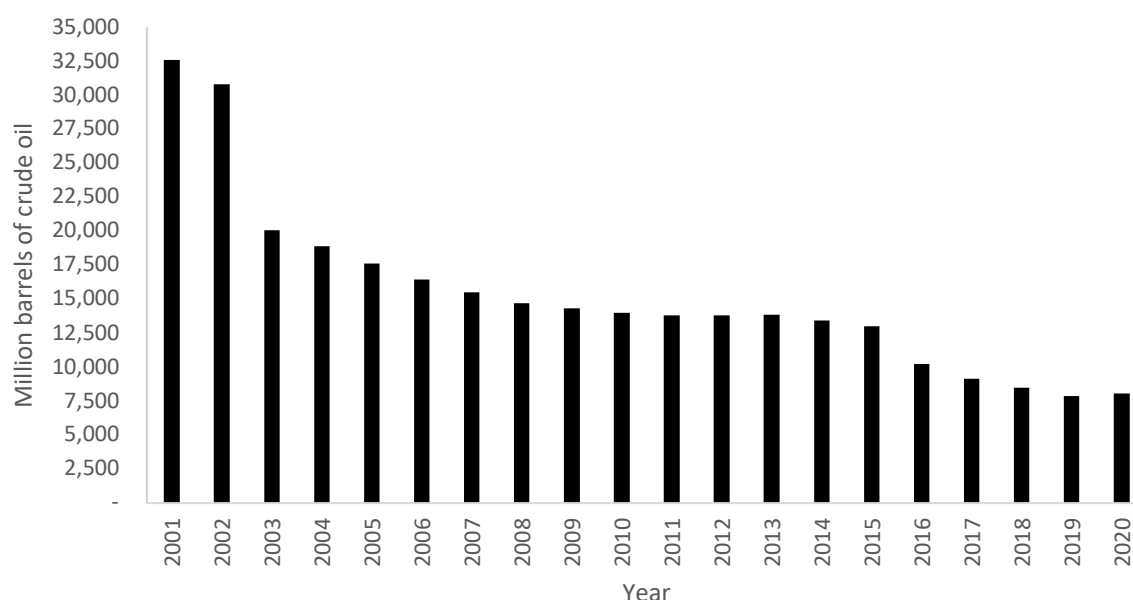


Source: Own elaboration with information from the International Energy Agency (2017)

In 2020 oil reserves dropped 75% in comparison to 2001 values, going from 32,500 million barrels of crude oil to a little more than 8,000 million (Graph 6.2). Oil production has gone through a similar path, reaching its highest point in October 2004 with 3,451 daily barrels of crude oil and plunged to 1,649, less than half, in December 2020 (Graph 6.3). Production costs, on the other hand, increased, going from 4.9 USD per produced barrel in 2009 to 14.2 USD in 2019 (García, 2020). Acknowledging this situation, the Federal Government promoted in 2013 a series of reforms that intended to boost productivity, alleviate the financial pressure, and break up with the national monopolies in oil extraction, production, and energy generation while fostering energetic transition. Among other changes, the reforms eased the possibility

for private and other public actors (states and municipalities) to generate their own electricity for self-supply or even commercialization (CEMDA, 2017). Until recently, Mexico City's government wasn't much interested in the possibility of energy generation.⁹⁸

Graph 6.2 Reserves of crude oil in Mexico 2001-2020



Source: Own elaboration with information from the National Hydrocarbons Commission (CNH). Retrieved on 28 april 2021 from <https://reservas.hidrocarburos.gob.mx/>

Graph 6.3 Oil Production, monthly average



Source: Own elaboration with information from the National Hydrocarbons Commission (CNH). Retrieved on April 28, 2021 from <https://produccion.hidrocarburos.gob.mx/>

⁹⁸ Following the 2019-2024 Environmental and Climate Change Program, the newly created General Direction of Development and Energetic Sustainability is in charge of the “Solar City Strategy” to create capacities in solar energy, install photovoltaic ceilings in public buildings and foster the energetic transition in small enterprises (CDMX, 2021).

More than involving subnational governments, the reforms show the federal government's longstanding climate framing as an externality of energetic policy. Calderón's administration already intended to achieve changes of this type but obtained limited results due to an adverse political context (Valenzuela & Studer, 2017). Therefore, without denying his personal commitment towards climate change mitigation, one of the main motivations for policy change during his term was energetic security (Valenzuela & Studer, 2017; von Lüpke & Well, 2020; Interview 9). In that sense, an economic rationale of securing energy production and easing the load on public finances was behind climate governmental action. According to Fekete, Mersmann and Vieweg, this is a common trend in developing economies, where secondary political goals, such as climate change, "open new potentials to achieve other primary development goals" (2013, p. 2).

Discursively, the energetic reforms were tied to climate objectives; in practice, however, they reflected a market logic to face the above-mentioned problem. In their analysis of energy and climate policy integration in Mexico, von Lüpke and Well (2020) find that while the so-called energetic reforms linked explicitly energy and climate change, in practice they responded to energy security and economic aspects, without a clear linkage to GHG emission reduction. The authors show that renewable energy goals of the Special Program of Climate Change 2009-2012 don't match those of the laws. Moreover, the instruments in charge of forging the links between the environmental and energy sector – the National System of Climate Change, the Inter-sectoral Commission of Climate Change and the Consultative Council for the Energetic Transition – fail to fulfill their purpose. This is also evidence of the problem's framing at the federal level, where emission reduction is a positive externality of the energetic transition and not a goal in itself (Sosa-Nunez & Lucatello, 2016).

This view is accounted for by a top-level officer in the Undersecretary for Planning and Energy Transition of SENER. According to the fonctionnaire, their actions related to energetic efficiency have positive effects on emission reduction without being its primary goal. Therefore, more than a strategy intended to reduce the GHG emissions from one of the main sources (energy generation accounts for 25.9% of the country's total), the climate -related commitments are treated as a positive effect,

"We have the compromise to reduce emissions in the hydrocarbons industry and we have also other related topics. Although, they are not directly related as an emission reduction objective but as an energetic efficiency goal. We also have objectives and compromises for clean and sustainable use of energy. Both topics have effects in

emissions. So, we have some commitments in clean generation that traduce into GHG reduction coming from fuel and the electric sector emissions...All the sectors now have obligations to reduce energetic intensity, i.e., how much energy is used by one unit of product. And all this has some correspondence with emission reduction even if the primary objective is energetic efficiency and not to reduce emissions... For us, the first priority is not the issue of climate change, it is energy, however, it has some correspondence with climate change” (Interview 32) .

Moreover, the officer argues that the lack of interaction with subnational actors is because they don’t understand the market logics of the energetic sector. According to the interview, Mexico City hasn’t realized the opportunities opened by the energetic market that will reduce consumption and ultimately traduce in decreasing GHG emissions. In turn, the lack of coordination causes “incompatibilities” between the city’s needs and energetic planning at the federal level. All this leads to different framings over the causes and solutions of the problem: one oriented towards a market perspective and the other related to climate objectives. Each one focuses on different aspects, hindering the possibility of interaction,

“Mobility decisions have impacts on fuels and that has an impact in the energetic sector. Part of the energetic policy demands reliable supply of this products. Both, this part [fossil] and now electric mobility. SEMOVI [the local Secretary of Mobility] has its planning on the Subway and *Metrobús*, and the general transportation system and that has a direct effect in the [energy] sector...The point that I want to convey is that we need a joint exercise to compatibilize Sheinbaum’s mobility project in Mexico City [as the elected mayor in 2018] with the national energetic project. For example, if Sheinbaum’s project is to have a third of electric transport that would have an important effect in the electric sector. Therefore, if you don’t know about it, you won’t program that expansion to meet Mexico City’s needs” (Interview 32).

“In this moment we haven’t realized, the city as an actor, as a demander of energetic flow, that you can participate in the market and that can represent savings. I think that as the people become more aware that the market is the sector’s *modus operandi*, they will take a more active role to participate in the market. The city is responsible to pay its electricity bills. They have to pay the bills. If they aggregate that demand, they can participate in such market. They save some money and at the same time they can also show that they’ve made a technological change, reducing their emission intensity” (Interview 32).

The different problem conceptions come from a sectorial paradigm regarding the distribution of competences: the fact that energy has historically been a federal competence has led to a non-involvement of the city in that domain. As local civil servants acknowledge, their role in energy policy domain is minimum because it's a faculty reserved for the federation. For the Climate Change Direction's personnel, the city has no activity in energy generation and their position is mostly as consumers, a statement that contrasts with the abovementioned view of the officer from Federal Secretary of Energy, who claims that they city should consider a more active role on the domain,

“The issue with climate change is its transversal nature. Thus, many topics are not circumscribed to the National System of Climate Change or SEMARNAT. We don't have any attribution in terms of energy because in the former D.F., *Luz y Fuerza* [an extinct electricity distribution public company] and PEMEX were in charge of the issue. We are consumers with very few interactions with the part of energy generation” (Interview 10).

These elements alter the perceptions of the mutual dependencies between federal and local government, widening their interactions gap. Approaches to the problem definition affects the governance arrangements of the climate problem by isolating the actors according to each other competences. On the one hand, federal climate policy is subsidiary to energy security and works under a market logic. On the other, the city sees energy as a federal attribution where it has no place. The divergence on framings along with the system of attributions makes both actors to develop isolated actions in their own sphere of competence.

As a local attribution, transport presents a similar situation. In air quality policy interactions, the interrelation of policy instruments fostered coordination during the coordination sequences. Federal regulations tied to local indexing and vehicle control procedures gathered all the actors into a joint strategy to prevent pollution peaks. In climate policy, however, such links do not exist. There is only one federal instrument seeking to regulate CO₂ transport emissions coming from vehicle exhaust: the 2013 Mexican Official Norm 163-SEMARNAT-SENER-SCFI-2013. However, it is directed towards the federal government-regulated industry, without any ties to local vehicle controls. Its purpose is to increase energetic efficiency by reducing fuel consumption through the installation of technological packages that improve their performance. Ultimately this leads to less greenhouse gas emissions and economic benefits for car owners without any local-related action. The city then acts on its own implementing

mobility policies such as the BRT system, *Metrobús*, and the shared biking program without any federal involvement.

6.5 Conclusion

Since the adoption of climate-related measures in Mexico City as consequence of the political and institutional changes of the mid-90s, local and federal climate policy followed a decade long parallel and disconnected institutionalization path. Due to the novelty of the climate problem, there were no previous policy ties that could help to bridge the changes or what I understand as a “problem inertia”. Therefore, the initial low interest of the federal government in the topic and continuous political struggles between both levels fostered such disconnection. During that period, the city built on capacities and positioned itself as a regional leader, forging links with non-governmental and international actors. By the time the federal government regained climate interest and the political differences were smoothed out, it was just too late: the city had already built an organizational and institutional structure, making it capable to develop climate-related measures on its own, creating a notion of isolated development. Partly due to design flaws, national institutions seeking to foster coordination were unable to break up with this trend. They ended-up only reorienting interactions, leading to another sequence based on attribution compliance. In sum, local capacity building, political struggles and institutional flaws are the reinforcing factors of local and national policy separated paths.

Besides the abovementioned disconnection-reinforcing elements, institutionalized patterns and cognitive elements also contributed to explain coordination processes within climate policy governance arrangements. In the first place, the environment-mobility contradictions guided the interactions with local non-governmental actors, resulting in a two-faced policy. Environmental NGOs cooperate with the city in sustainability-related initiatives; at the same time, they keep a continuous struggle, contesting road construction and car-use. This contradiction is embodied in the environmental activists once criticizing the government and later joining a political project in which they must justify car use and work under these contradictions.

Air quality policy legacies add up to the explanation due to its garbage-can features (i.e. providing existing solutions to a new problem). Part of the city’s expertise and actions comes from previous experience fighting air pollution. The local secretary had longtime been elaborating emission inventories, thus, by the time national legislation made them mandatory, the city had the task already covered and there was no need to engage in technical cooperation

with federal level authorities. Similarly, the development of the first low-carbon actions (the *Metrobús* project) were initially intended to fight air pollution. However, the framing for the BRT changed to be recognized as a climate policy with co-benefits in air quality.

Now let's move to the cognitive aspects. As mentioned before, the climate fund was the only instrument to mildly develop local-federal interdependencies. Nonetheless, the federal government's control, resulting from the centralist *référentiel*, made it more a top-down steering instrument than a way to converge and foster joint initiatives. In addition, a sectorial paradigm leading to different problem approaches hindered the possibilities for coordination. Despite the federal government's interest in reducing GHG emissions, its mitigation efforts are seen more as a positive externality of the country's energetic transition than a goal in itself. Climate policy is therefore subsidiary to energy security, working under a market logic of cost-reduction. The federal government then expects that interactions with local governments follow such logic to decrease energetic consumption and reduce costs. Whereas the 2013 reforms opened possibilities for a more in-depth local participation in energy generation, the city sees the subject as an historical federal attribution where it has no competences. On the other hand, as a local attribution, transport has few federal involvement, with only some industry regulations that don't reach local actions. Such different framings are the result of a sectorial paradigm where both actors see their attributions separated, thus preventing them to acknowledge their mutual dependencies, widening the interaction gap.

Chapter 7. All roads lead to Rome. Planning coherence (almost) without interactions in climate policy in Paris.

7.1 Introduction

Think about the following scenario under which climate planning takes place in Paris: actors from rival political parties, who have different problem definitions, interact under an ambiguous institutional framework, with few (or none) incentives to coordinate. This may well sound like a combination for conflict. And yet it wasn't. Even more so, whereas the actors didn't carry out joint initiatives, neither did they interfere with each other; in fact, all their plans have coherent objectives. Was it mere coincidence? Chance would be a fine thing. This sort of paradoxical situation merits a more elaborate explanation, related to international commitments, the city's isolated development and the problem features.

During the eighties, France carried out "clean energy" policies to face oil price shocks, achieving a considerable reduction of greenhouse gas (GHG) emissions. Such measures, however, were industry-based and focused mainly on the supply side, leaving energy consumption unattended. Stricter international and European standards for GHG emission targets challenged the feasibility of the strategy. To keep the decreasing trend and meet the international thresholds, the State had now to address the demand-side. For this reason, the national government incorporated subnational actors into climate policy making, keeping track of their actions. A global *référentiel* related to the State's need to keep control over certain issues – meeting international commitments in this case – led to a piecemeal engagement of the subnational governments.

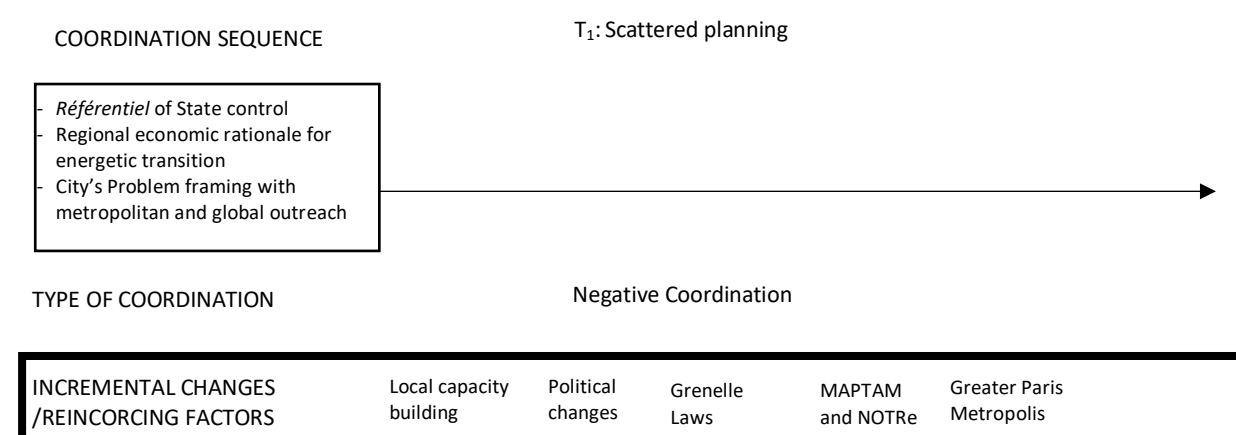
Due to the presence of the Green party in the Hôtel de Ville, climate policy got into the city's agenda before the Region and other Île de France *collectivités*. The early adoption of a climate plan before it became mandatory (after the Grenelle laws) placed the city as one of the pioneering *collectivités*, setting the pace for its interactions with other actors. Getting ahead of other local governments put the city in a leadership position, developing capacities and therefore not requiring of other actors to meet its climate objectives.

Following this, the chapter argues that the initial state of the interactions (or the lack of) has gone through a path dependent process reinforced by incremental changes – capacity building, political transformations, the creation of the metropolis and institutional ambiguities – combined with institutionalized problem approaches, all this resulting in negative coordination.

As Figure 7.1 shows, there is only one coordination sequence. In this case, neither institutional nor political changes represented a shift towards differentiated interactions or coordination modes. Climate policy interactions are therefore characterized by fragmented developments from each government level and only the city and the metropolis have some degree of planning convergence.

To develop the argument, the chapter is divided into two sections. The first one explains the agenda-setting process of climate policy in the City and the role of the State, leading to the original state of the affairs. The second section shows the reinforcing elements of the path-dependent process of the interactions. The analysis focuses mainly on climate planning for two reasons: (1) all the actors have the obligation to elaborate a climate plan and (2) they must be coherent between them. Therefore, planning processes reveal interactions (or the lack of) between the actors within the Parisian region. Due to the institutional and problem features, other subnational actors such as the EPCI, other departments and communes are not considered in the analysis. Besides having no formal obligations to interact with the city, the interviewed public officers from surrounding departments, communes and EPCIs acknowledged that they have barely any interaction with the city of Paris in climate matters due to the city's isolated path and the divergence of priorities (Interviews 69, 70 and 79).

Figure 7.1 Coordination sequence in climate change policy



7.2 Climate change agenda-setting in Paris. Top-Down actions and a boost from local politics

7.2.1 International action, national adoption, and top-down gradual subnational engagement

Similar to Mexico City, the adoption of national climate change policy in France and the further subnational involvement situates in the context of international discussions and agreements over greenhouse gas reduction objectives. This section shows that the State's motivation to involve local governments was to meet European and internationally agreed emission targets. Initially, France's energy security policy located the country as an "inadvertent pioneer" in the clean energy supply-side, thus meeting initial GHG reduction objectives was not a problem. As international and European agreements evolved to set stricter emission reduction targets, the national policy reached its limits and could no longer keep the decreasing trend without involving the demand side of local energy consumption. Therefore, while keeping policy under its control, the State gradually involved subnational governments to meet internationally defined GHG reduction goals.

Understanding the role of the State and its motivations to set the local climate agenda is relevant for this chapter due to its long-lasting effects in coordination processes. The State-induced piecemeal involvement of the *collectivités* led to different adoption timings among the actors in the Parisian region. As the chapter later shows, the city became an early adopter, advancing other local governments and the Region by developing organizational and technical capabilities. This frontrunning position created a sense of isolated development, therefore not requiring of other actors to meet its climate objectives.

7.2.1.1 *A clean energy policy reaching its limits*

European approaches to the climate problem have changed over the years. Environmental and energy security policy objectives motivated the first European climate-related measures in the 80s-90s. Initially, both were inserted in a wider discourse of sustainable development, rather than directly pointing to climate change mitigation efforts (Kurze & Lenschow, 2018; Rayner & Jordan, 2013). Such approach gradually changed to set climate change as the main environmental issue. Indeed, from the 1992 Rio Earth Summit onwards, the EU members altogether negotiated particular instruments and climate policy objectives, adopting a leadership role on in the issue by committing to aggressive emission reduction goals and continuously updating its regulations and carbon targets (Bäckstrand & Elgström, 2013; Kelemen, 2010). For example, the EU first committed to stabilize its CO₂ emissions at 1990

levels by 2000, and later on, it advocated for a 15% reduction, in contrast to the required 8% in the Kyoto Protocol (Bäckstrand & Elgström, 2013; Rayner & Jordan, 2013). Since then, the EU has shown its regulatory power by spreading its environmental norms and leading standards on greenhouse gas reduction (Kelemen, 2010).

Inserted in this context, France adopted its first emission reduction policies and positioned immediately as a frontrunner. By the time the country signed the '92 UN Framework Convention it already had significant GHG emission reductions: between 1980 and 1990 the country decreased its emissions by 26.5% in contrast to the European average of 19.3% (French Government, 1995). However, the main drivers of the french early breakthroughs followed an economic rationale. As recognized by the government, they were the result of an energy security policy following the oil price shocks of the eighties, itself: “Les autorités françaises rappellent que la politique énergétique qu'elles ont menée depuis le premier choc pétrolier a déjà permis de réduire très sensiblement les émissions de CO₂ et donc la contribution de la France à l'effet de serre” (French Government, 1995, p. 6). As a result, according to Joseph Szarka, one of the leading analysts of French climate policy, France introduced regulations, taxes and a massive nuclear program “whose by-product was a reduction in GHG emissions” (2011, p. 161).

France's “unintentional” GHG reductions achieved significant results that were soon to become obsolete. The energetic policy contributed to decrease GHG from industry by 19% in the 1990-2003 period (French Government, 2006b). Globally, the country's GtCO₂-eq emissions in 2003 were 2% lower than in 1990 (French Government, 2006a). However, with 1990 as the base year to cap GHG emissions, the major reductions coming from the energetic policy were reaching its limits. This meant that, compared to other countries such as the UK or Germany that had incoming GHG reduction measures, the French government had “less “low hanging fruit” to pick in terms of cuts” (Szarka, 2011, p. 165). Even more so, the emissions from other sectors were growing. As the country's Kyoto Protocol Progress Report shows, in contrast to the industry's decrease, transport and residential sectors augmented their GtCO₂-eq emissions by 20% and 6%, respectively (French Government, 2006b). While the supply side of GHG emissions (energy generation, mostly industry-based) achieved significant results, the current policy focus failed to reach the demand side, comprised by households and private and public transport. In other words, what the numbers reveal is that without action at the local levels, France would be unable to keep the pace on GHG reduction targets.

France's active international climate engagement contrasted with the State's passiveness towards the *collectivités*, whose formal competence transfer didn't come (voluntarily) until 2004, and became formally institutionalized in 2010 with the Grenelle laws. During the 90s-early 2000s, the State's posture towards subnational involvement focused mostly on raising awareness, orienting and encouraging voluntary local actions (French Government, 1991, 2001). In the first three National Communications from France to the UNFCCC there is no trace of indicators or concrete objectives of subnational expected contributions. In fact, the State initially acknowledged that local contributions were marginal,

“Il est très difficile de chiffrer a priori l'impact des mesures qui seront prises par les collectivités locales dans le cadre des plans de déplacements urbains. Il devrait rester marginal en 2000, mais pourrait dépasser 1 MtC/an à l'horizon 2020” (French Government, 1997, p. 59).

This contrasts with ongoing decentralization reforms in other related domains, such as the case of air quality with the 1996 LAURE (see chapter 5). In the air quality case, the delay on the competence transfer was partly because decentralization reforms were not consolidated in the domain and in general due to the city's low interest in the issue. And while the issue took more time to reach Paris, the regional authorities and other municipalities got some competences on the domain. However, in this case decentralization processes were already ongoing, so why then did it took the State so long to transfer competences to the local governments? And when it did, why was it gradually? This is explained by the State's centralist tradition to keep policy control and to orient climate policies to meet its international commitments.

7.2.1.2 *Involving the collectivités*

The State's approach was no longer useful to meet the growingly ambitious international commitments and the stricter European standards to achieve reductions beyond the mandatory Kyoto Protocol's targets (Bäckstrand & Elgström, 2013; Kelemen, 2010). That, combined with increasing technical problem knowledge (due to the engagement of the scientific community and the work of the group of experts of the Intergovernmental Panel on Climate Change) and its evident effects, such as extreme heat waves (Yalçın & Lefèvre, 2012), made clear that the issue could not be tackled solely at the national level. Nonetheless, once the State began to involve the subnational units, it was not through direct competences but a piecemeal process over the years and to fulfill national interests. This contrasts with the competence transfer and

attributions in other domains, such as air quality and transport (see Chapter 5). In the case of climate change, the State involved the *collectivités* only gradually over a decade.

The piecemeal competence transfer is not particular of climate policy. It has its roots on the French centralist tradition and the State's need to keep control over local issues. While experiencing a “physical” retreat in the local deconcentrated services, such as the DRIEE, the State has managed to keep control using a long-distance steering (Béal, Epstein, & Pinson, 2015; Epstein, 2015). Thus, since the early 2000s, the State's apparent retreat is more a soft-direct intervention by influencing the identification and selection of local policies through different instruments. According to Epstein (2015), the State uses three main policy instruments to steer local involvement:

- Calls for projects: the State secures subnational alignment to national priorities through the publication of national calls and the subsequent allocation of central funding at the local level. Therefore it is a “disciplinary instrument, which allows a State with scarce resources to obtain the free conformation of autonomous actors” (Epstein, 2015, p. 473)
- Labeling and territorial distinctions: rewards regulatory compliance beyond obligatory requirements and distinguish local exceptionality. These are competitive mechanisms used by cities as part of territorial marketing strategies. They have the same effect as the calls for projects.
- Performance indicators used to report and monitor local progress: serve as a means of central control to achieve nationally defined targets.

Using “soft law” rather than command and control instruments, the State slowly involved the subnational governments on climate policy while it kept control over the issue. Initially, through the so-called Agendas 21, local governments were encouraged to define local sustainability-oriented transversal projects through participative processes. Since 1997, the State has launched three calls for the agendas which more than the financial support, give legitimacy to the issue (Emelianoff, 2005). By 2006 the Ministry of Ecology and Sustainable Development created the label “Agenda 21 National France” to recognize local efforts in the matter. To secure its alignment to national GHG targets, the Ministry of Ecology and Sustainable Development evaluates and monitors this steering instrument through a national reference framework. For example, the evaluation framework asks “Is there a goal of reduction of GHG emissions compared to 1990? Of 20% till 2020?” (Boutaud, 2009, p. 43). Another instrument of this kind are the emission inventories. Through the “Bilan Carbone”, the ADEME defined a methodology for emission accounting seeking to have a coherent account

of the GHG emissions at the subnational level (Virilouvet, 2015). Its initial voluntaristic nature focusing on criteria and measurement processes, sought only to achieve nationally defined targets, making it another long-distance control instrument.

Soon after the agendas, the State launched another call for the ATEnEE contracts (Actions Territoriales pour l'Environnement et l'Efficacité Energétique). Through the ADEME, they intended to give financial and technical support to extend or enhance existing initiatives to foster energy efficiency (ADEME, 2002). Similarly to the Agendas 21, ATEnEE contracts had State-defined criteria and evaluation procedures, allowing "the State to orient their financial resources to a restricted number of projects", thus controlling the subnational actions (Gerardin, 2018, p. 84). Before allocating direct planning attributions to the *collectivités*, contracting seemed the State's preferred path to involve them on climate- energy measures. In addition to ATEnEE, the fourth generation of the State-Region planning contracts (Contrats de Plan État Region)⁹⁹ integrated, for the first time, energy management related issues (Virilouvet, 2015). The decision, again, came from the top. Through the *Circulaire 27 aout 1999*, the Minister for the Environment highlights the role of the subnational governments to reach the country's international commitments (Kyoto Protocol targets) and she recalls the regional prefects to integrate the fight over GHG emissions as one of the priorities for the 2000-2006 contracts,

"Les engagements issus des négociations de Kyoto et de la répartition de l'effort au sein de l'Union européenne assignent à la France un objectif quantifié de stabilisation des émissions de gaz à effet de serre pour la période 2008-2012 par rapport à l'année de référence 1990. Ces engagements sont ambitieux puisque, sans mesure nouvelle, on peut estimer à 10% l'augmentation spontanée de nos émissions sur la même période...Réunie le 27 novembre 1998 sous la présidence du Premier ministre, la Commission Interministérielle de l'Effet de Serre a donné l'occasion au Gouvernement de rappeler que les objectifs poursuivis par la France. Elle a notamment conclu : "L'ancrage territorial de la politique nationale constitue l'une des conditions de son efficacité"...Lors du CIADT du 15 décembre 1998, le Gouvernement a insisté à nouveau sur le fait que "par leur caractère pluriannuel et interministériel les CPER constituent un outil privilégié de mise en œuvre des engagements de la France..." "

(French Government, 2000, p.80).

⁹⁹ Through these contracts, the State and the Regions engage in pluriannual concurrent financing of common projects.

This quote addresses the subnational governments as drivers to reach the State's targets, instead of entities that could contribute on their own to decrease GHG emissions and sum up to fight climate change by themselves. Additionally, it highlights the top-down view of the issue. According to the *circulaire*, it is the Ministry through the ADEME the one in charge of setting the objectives and encouraging the energetic transition. The Agency exerted the State's action at the territorial level. Through technical and financial means, the ADEME ensured that the voluntary and rather marginal local measures aligned to meet the State's targets.

Despite these atomized initiatives, there was neither a comprehensive climate policy towards the local level, nor direct attributions to encourage local engagement. Everything was controlled and managed by the State, mainly through the ADEME. The state of the affairs changed when, in addition to growing international commitments, the increase in extreme weather conditions, and specifically the 2003 devastating heat waves raised the State's awareness to develop local mitigation and adaptation strategies (Yalçın & Lefèvre, 2012). The proof: the 2004 National Climate Plan granted the *collectivités* with planning attributions through the Territorial Climate Plans. As voluntary initiatives, only a few, large, and already environmentally-engaged *collectivités* adopted the local plans (Bertrand & Richard, 2014, p. 197). According to Bertrand and Richard (2014), factors such as previous links with the ADEME, preexisting information structures, technical expertise and taking advantage of the opportunity for territorial marketing, engaged these pioneering localities in climate planning (see also Gerardin, 2018). The State still kept its presence by providing financial and technical assistance through the ADEME. In fact, ATEnEE contracts financed some of the first Territorial Climate Plans (Virilouvet, 2015).

Local climate policy finally became institutionalized with the 2009-2010 *Grenelle* laws. In this "second period" of territorial climate action, Climate-Energy Territorial Plans became mandatory for localities over 50,000 inhabitants. Additionally, the laws introduced the Regional Climate-Air-Energy strategy (*Schéma Régional Climat-Air-Energie*), jointly elaborated by the regional executive and the Prefect. Local plans must be aligned to the *Schémas* to ensure coherence between local and national targets. In this way, while formalizing the subnational involvement in climate policy, the State remained in control of the main goals to reach its international commitments of reduction targets.

From the early, voluntary actions to their formal involvement, local climate policies followed a top-down institutionalization. Even the pioneer localities that voluntarily adopted their territorial climate plans, did so once the State opened the window. The following section shows

that the City of Paris was no exception and followed this top-down path. Additionally, a necessary condition for the development of climate policies was the green presence in the city council. As the next section shows, the adoption of the local climate policy contrasts with air quality (see Chapter 3). In this case, it was not until the city acquired the attribution when it engaged in climate-related measures; in contrast, the air pollution issue got into the agenda even before the city and the region had direct, formal competences (through the LAURE in 1996).

7.2.2 From a broader notion of sustainability to a top-down adoption of climate policies in Paris

7.2.2.1 *Making sense of climate change*

As seen on Chapter 3, local politics was one of the defining factors for turning air pollution into a local problem. Under Mayor Tiberi's term, socialist and green parties constantly critiqued the government's inaction on the matter, exerting pressure for traffic reduction and other immediate air quality measures. Later on, when the socialist-green coalition arrived to the *Hôtel de Ville* by 2001, air quality policy intensified, reaching important results mainly on transport-related actions (see Chapter 3). Under these conditions, one could expect that other environmental issues, with similar causes, such as climate change would share a preeminent role in the agenda from 2001 onwards. However, it didn't happen until 2005, when the mayor decided to elaborate the territorial climate plan that was finally adopted in 2007. Albeit a necessary condition for the city's adoption, the green-socialist presence was not as determining factor compared to air quality. What was different with climate change? Why despite the socialist-greens presence in the governing coalition, the problem wasn't fully acknowledged until after the 2004 National Climate Plan? The explanation is that the problem's location inside a broader sustainability discourse and its limited knowledge – sometimes entangled with air pollution issues – refrained it from reaching a higher agenda status before the State granted planning competences.

Climate change in Paris was not framed as an individual problem but as part of the broader conception of sustainable development. As Kurze and Lenschow (2018) show, this was a generalized trend in Europe. According to the authors, the prevailing policy discourse was a comprehensive problem definition of sustainable development where climate change was “one among other local and regional environmental problems linked to energy production and consumption patterns in Europe” (Kurze & Lenschow, 2018, p. 335). By the 2000's the

problem definition narrowed down and climate change became the main environmental problem, turning GHG emissions reduction into the key common objective (Kurze & Lenschow, 2018). Although the authors develop their analysis at the European level, the same conceptions apply locally due to the top-down policy orientation. Being an issue among others, inside the broader problem of sustainable development, led to a fuzzy understanding of greenhouse gas effects, and even created confusion with other problems such as air pollution.

Up to these days, public policy literature catalogues climate change as a wicked problem (Kalafatis, 2018; Peters & Tarpey, 2019) (see Chapter 1 as well), meaning that it has not a commonly agreed definition or solution, leading to discrepancies between the involved parties on the ways to address the issue (Alford & Head, 2017; Rittel & Webber, 1973). The continuous work of the Intergovernmental Panel on Climate Change, international conferences and workgroups, and general scientific research has contributed to a better understanding of the issue, and the ways to address it. By the early-mid 90s, however, the problem was just arriving at international discussions, thus its causes, effects and general public knowledge was scarce, leaving more room for different perceptions of the issue. This is evident in the first Paris Council debates around greenhouse gas effects. By 1995, when the air pollution problem was already salient in the city, the links between greenhouses gases and energy production were more related to air quality rather than its climate effects. As the quote from the deputy Mayor Roger Romani – a close collaborator to Jacques Chirac and then Jean Tiberi – shows, early mentions of the issue were addressed within discussions on air pollution. Romani mixes up both issues during his intervention on the Paris Council debates. For him, greenhouse gases were something impacting the atmosphere, not necessarily related to climate change,

“Paris donc, qui a su avec sa banlieue juguler la pollution aérienne de SO₂, se doit de collaborer à la lutte contre cette pollution régionale dont les répercussions mondiales sont malheureusement de plus en plus probables. Je rappelle le rôle du CO₂ dans l'effet de serre et le rôle des CFC dans la destruction de l'ozone stratosphérique dont l'existence est indispensable à la vie sur la planète” (Debat Conseil Municipal Juillet 1995 10 - 1995, D.1082).

During these early debates, climate references were just towards meteorological conditions as precursors for atmospheric pollution. Later on, when the administration changed and the socialist-green coalition got into power, there was a more direct link between greenhouse gases and climate change. However, the climate agenda was not even in the Green Party's electoral platform. The greens recognized the effects of greenhouse gases in the temperature increase,

leading to serious climatic phenomena: “ce phénomène planétaire [GHG effect], dû à l’accumulation de gaz carbonique dans l’atmosphère, accroît la température et entraîne des phénomènes climatiques graves” (Green Party, 2001); however, they catalogued greenhouse gases as a type of global pollution, whereas air pollution was a local phenomenon. Even more so, they made these references in a document entitled “The Greens in Paris, Propositions for Making the City More Breathable”,

“En France, 40% des émissions de gaz à effet de serre sont dues au transport routier. Là encore, l’automobile produit 2 à 2.5 fois plus de gaz à effet de serre que le transport public pour le même nombre de personnes transportées sur la même distance. Diminuer les déplacements automobiles en faveur des transports publics, c’est donc à la fois diminuer la pollution locale (pollution de l’air) et la pollution globale (effet de serre)” (Green Party, 2001).

According to this, the city’s actions to reduce GHG would be more a symbol of global solidarity than a local duty. This has to do with the problem’s novelty and the framing at that time: while committing to sustainable development, then the city would automatically be fighting climate change. Therefore, according to the above quote, decreasing the car use by encouraging public transport would contribute to fight local problems and at the same time reduce this sort of “global pollution”. Under these ambiguities and with other problems occupying a more prominent role in the local agenda, such as air quality, climate change had little room. However, the situation was about to change. The next section shows how the State’s intervention combined with local politics to finally place the issue into the local agenda.

7.2.2.2 Top-down insertion, the greens, and a pinch of unfortunate events. Climate change reaching the local agenda

The issue finally got into the city’s agenda when the mayor decided to elaborate the Paris Climate Plan in 2005, making the city one of the pioneers in the issue. Delanoë’s decision came once the 2004 National Climate Plan gave the *collectivités* the opportunity to elaborate voluntarily the planning instrument. According to Yalçın and Lefèvre (2012) and Bertrand and Richard (2014), four elements encouraged the pioneering cities to elaborate a territorial plan: (1) political leadership; (2) previous sustainability actions; (3) the existence of an administrative structure on environmental affairs and human and financial resources; and (4) conjunctural events. As this section shows, a fifth, and probably defining factor for the city’s early adoption were the State’s actions.

Political leadership refers to personal and political interest in sustainable development issues from the elected officials. This can go from an intrinsic commitment to solve the problem, to a territorial marketing strategy, bringing opportunities for potential image gains. In this regard, the good results in the 2001 elections (chapter 2) gave the Green Party two key deputy mayor positions (environment and transport) allowing them to keep environmental issues in the city's top priorities. As a result, the city suffered organizational transformations in the environmental domain, such as the establishment of the Urban Ecology Agency (*Agence d'Ecologie Urbaine*), whose creation was a political commitment of the Green Party in 2002 (Inspection Générale, 2017). Nowadays the organization in charge of defining main environmental policy guidelines and foster policy coherence through planning.

Previous commitments to sustainable development or climate related policies (the second factor for the adoption of a climate plan) also contributed to local planning by easing the road for the implementation of more comprehensive strategies. Under the sustainability umbrella, the city first implemented isolated measures related to waste collection and improving the efficiency of the city's heating company (*Compagnie Parisienne de Chauffage Urbain*). The adoption of an Agendas 21 may have been the next step to bring local policy coherence towards sustainable development goals. To encourage their adoption, the State launched three calls for projects (in 1997, 2000 and 2003) before the 2004 Climate Plan (Emelianoff, 2005). Despite the continuous calls and recurrent discussions in the Paris Council on the matter, the city never fully engaged in an Agenda 21. In relation to other communes, Paris was a late adopter and once it did, it dropped the project.

However, the frequent debates around the Agendas 21 in the Paris Council, contributed to raise the awareness for the implementation of a more comprehensive strategy. First Agenda 21 mentions date from mid-2003. After a demand by Claire de Clermont-Tonnerre (Councilperson of the right-wing party, UMP) to integrate various subjects under the sustainability umbrella, the Deputy Mayor for the Environment, Yves Contassot replied: "Cela étant, il est vrai que toutes ces avancées doivent être mises en cohérence dans le cadre d'un Agenda 21, sujets sur lesquels nous travaillons également, et qui fera sans doute, dès que ce sera possible, l'objet d'une communication en Conseil de Paris" (Débat/ Conseil municipal/ Juin 2003). The subject arised during various council meetings where opposition parties didn't miss the opportunity to point out the City's administration inaction and its silence on the issue: "Enfin et surtout, vous demeurez muets sur l'agenda 21 et une quelconque complémentarité avec sa déclinaison sur les villes" (Didier Bariani, UDF, Débat/ Conseil municipal/ Juin 2004), and repeatedly urged

the major to set a calendar for its elaboration. Finally, after signing the Aalborg Charter¹⁰⁰, Mayor Delanoë committed to elaborate an Agenda 21 by mid-2005. The Green Party expectations for the Agenda 21 would be to turn it into an instrument to give coherence to such isolated actions,

“Les contraintes environnementales font que Paris se doit de continuer d'agir et d'amplifier son action en faveur de l'environnement et du développement durable. L'Agenda 21 sera le moyen d'y parvenir. C'est dans sa mise en place que toutes les actions déjà engagées seront développées et prendront toute leur cohérence. Ce document opérationnel nous permettra de mettre en place des programmes d'action qui s'appliqueront à l'ensemble des domaines de gestion de la Ville, ainsi qu'à toutes les composantes de son administration et également à ses habitants, en relation naturellement avec la Région Ile-de-France pour prendre tout son sens” (2005, SG-DPE 101 - Communication de M. le Maire de Paris sur l'environnement. Débat/ Conseil municipal/ Juin 2005).

However, years passed and besides labeling some projects as Agendas 21 in 2008, they were finally dropped. One explanation is that the continuous delays on the agendas ended up converging with other planning instruments such as the Local Urbanism Plan (PLU) of 2006 and later on, with the 2007 Local Climate Plan. For example, the former (whose elaboration began in 2001) includes a Planning and sustainable development project (PADD) – required by the *Loi n° 2000-1208 du 13 décembre 2000 relative à la solidarité et au renouvellement urbains* – in which one of its sustainability objectives deals directly with environmental sustainability and greenhouse gas reduction. However, it relates them to reducing air pollution and housing-related energy efficiency, without a direct link with climate change. The subject was barely addressed, and it was mostly related to the preservation of biodiversity (Plan local d'urbanisme, 2006).

By looking up for similar things – transversal and participatory instruments incorporating sustainable development on local policies – these other plans ended up overshadowing the Agendas 21. As recognized Denis Baupin, the Deputy Major for Environment, the City concentrated its efforts on the elaboration of the Climate Plan,

¹⁰⁰ Established in 1994, it is a urban sustainability initiative inspired by the Rio Earth Summit's Local Agenda 21. It was approved by the participants to the First European Conference on Sustainable Cities and Towns in Aalborg, Denmark to contribute to the European Union's Environmental Action Program, “Towards Sustainability” (Sustainable Cities Platform. <https://sustainablecities.eu/the-aalborg-charter/> . Access 22 february 2021)

“Il est vrai que depuis un an nous nous sommes beaucoup consacrés à la mise en œuvre du Plan Climat qui nous paraissait être la priorité tout en réfléchissant à la meilleure façon de poursuivre le travail entamé en essayant d'engager une démarche qui ne soit pas simplement d'élaboration d'un plan, mais aussi de participation du maximum d'acteurs à ce processus” (Débat/ Conseil municipal/ Mars 2009).

The third factor leading to the early adoption of the climate plan is the existence of an administrative structure that helped to prepare the ground for its formulation. Organizations such as the above-mentioned AEU and AIRPARIF play an important role due to their technical expertise and the specific skills needed to develop the plan and engage diverse stakeholders. The Service Technique de l'Ecologie Urbaine (the former AEU) was in charge of the plan's elaboration, including the participatory processes and also developed the city's emissions inventory in partnership with the ADEME (Bouzzine et al., 2007). AIRPARIF, on the other hand, develops since the year 2000 a cadastral greenhouse gas inventory to keep track of the city's emissions (Kamal-Chaoui & Plouin, 2012). Finally, Bertrand and Richard (2014) highlight the increase of extreme weather events as the fourth factor determining early climate planning. The heat waves that hit Europe in 2003 had significant effects in France and ended up rising the awareness of climate change effects, encouraging national and local governments to act on the matter. The 2007 local climate plan adaptation strategies draw a “Plan Canicule” to face the effects of extreme heat waves, such as the ones of 2003,

“L'été 2003 a mis en évidence les conséquences des phénomènes caniculaires exceptionnels tant par leur durée que par leur intensité et, en conséquence, leurs impacts sanitaires. Parmi les 238 conséquences les plus redoutées, une surmortalité de 127% a pu être constatée à Paris en août 2003 au sein des populations les plus fragiles et les plus exposées. Le réchauffement inexorable de la planète laisse entrevoir la répétition accrue de tels épisodes” (Ville de Paris, Plan Climat 2007, p. 49).

The evidence portrayed above shows that all the above-mentioned elements combined to forge the path for the development of the 2007 local climate plan. However, previous sustainability actions, the administrative structure and conjunctural events are subsidiary to political leadership and the State's intervention. In that sense, the political leadership embodied by the Socialist-Green coalition and the State's steering instruments were both necessary conditions to accelerate climate plan's adoption and place the city in a pioneering position. For instance, climate change as a salient issue in a city of the importance of Paris means that other parties would have followed a similar path sooner or later. As discussed above, right wing parties,

such as the UMP and UDF continuously questioned the government for the adoption of an Agenda 21. However, they were more focused on exerting pressure on the ruling coalition with the sustainability discourse rather than arguing on the reduction of greenhouse gas emissions and its impacts on climate change. As seen above, during Tiberi's term, climate was addressed as a short-term meteorological condition related to air pollution. In contrast, the green party already recognized in its 2001 political platform the effects of greenhouse gases in the temperature increase, leading to serious climatic phenomena.

Regarding previous sustainability/climate change related actions (Agendas 21, Bilan carbone, and the Projects for Sustainable development of the Local Urbanism Plans), they all were State induced, either by calls and joint work with the ADEME or by law requirements such as the case of the Local Urbanism Plan. This does not mean that the city didn't put in place any measure towards sustainable development or climate change. Nonetheless, those were all isolated actions without a comprehensive strategy. This was recognized by the green party itself in 2005, acknowledging that the city was engaged with the environment but mostly through isolated actions that were steadily incorporated into other policies,

“Le groupe "Les Verts" ne peut que se féliciter de la profusion d'actions engagées par la Ville et rapportées dans cette communication [communication on the environment]. Elles peuvent apparaître comme une sorte d'inventaire à la Prévert, comme une succession d'actions sans cohérence les unes avec les autres. Mais, paradoxalement, c'est bien là tout leur intérêt. Elles démontrent par l'exemple que depuis le début de cette mandature, toutes les composantes de la Ville et de l'action municipale intègrent petit à petit, plus rapidement pour certaines que pour d'autres, une véritable dimension environnementale dans les politiques menées” (2005, SG-DPE 101 - Communication de M. le Maire de Paris sur l'environnement. Débat/ Conseil municipal/ Juin 2005).

Moving to the role of administrative structures and financial and human resources as preconditions of climate policies, they are subordinated to local political objectives and State induced. Here, the political leadership by the Deputy Mayor of the Environment was crucial to mobilize resources to restructure the Urban Ecology Agency and develop technical capabilities for environmental policies. Additionally, the State through the ADEME provided technical assistance. Such is the case of the emission inventory, elaborated by the city with the ADEME's technical and methodological assistance (also known as Bilan Carbone). Finally, the 2003 heat waves gave saliency to climate issues without triggering immediate adaptation strategies, or at least without framing them as such. Acknowledging the possibility of recurring meteorological

events due to climate change, the Paris Council demanded the Regional Prefect to develop a Plan for the Prevention of Foreseeable Natural Risks (*Plan de Prévention des Risques naturels prévisibles*). The quote from below shows that initially climate change was just one between other causes of natural disasters and the aim was to prevent them from happening rather than to adapt to the inevitable transformations of the rising temperatures. Later, the local climate plan included a proper adaptation strategy. The point made here is that whether the heat waves had an effect in the plan development, it was not necessarily an element leading to immediate action,

“Il n'est pas exclu, et même probable, que la multiplication de ces catastrophes soit l'effet du dérèglement du climat mondial, du réchauffement global. Quoi qu'il en soit, associés aux activités humaines les effets de ces catastrophes deviennent majeurs... Le Conseil de Paris émet le vœu : Que le Préfet, en application de la loi du 2 février 1995 (article L. 562-1 du Code de l'Environnement), prescrive un Plan de Prévention des Risques Naturels Prévisibles (P.P.R.), applicable à l'échelle de Paris” (Délibération/Conseil municipal/Septembre 2003).

These elements show that the Socialist-Green coalition coupled with the State's intervention led to the city's adoption of climate change as a specific public problem. Besides the State's actions and local politics, other government levels were absent during the agenda-setting process of Paris' climate policy. The analysis of the interactions in the following section will show that this original state reproduced, and interactions between the government levels within climate policy are kept to a minimum, without joint initiatives, leading to negative coordination.

7.3 Achieving coherence without coordination.

7.3.1 City going solo: different adoption timings, capacity building and the problem's global outreach

As seen in the previous section, the problem's insertion into the city's agenda was the result of two factors: (1) a top-down implementation of State-led actions – first through policy instruments and then by the attributions granted by the 2004 National Plan –, and (2) local politics. By issuing its first climate plan in 2007, before it became mandatory by the Grenelle Laws, the city got ahead of other collectivités, and notably the Île de France region. As an early adopter, the city was mostly *going solo* on climate matters, without external interactions other than its relationship with State agencies such as the ADEME. The different adoption timings

created a notion of isolated development, that was reinforced by two elements. First, the city built on capacities earlier than other local governments, becoming a territorial leader. This position created a belief that the city would not require other actors to meet its objectives. Second, the city perceives its actions as contributions to alleviate a global concern rather than a territorial issue. Such global outreach links the city's actions directly to national targets, with the ultimate goal of fighting the world's climate problem, thus there is no need to forge local ties. These elements create a comfortable situation for all the actors in Île de France and avoid conflict between the city and the region despite its partisan differences. On the one hand, the city develops its actions without any interference; on the other hand, with the city setting ambitious objectives, the region concentrates on other territories to develop some energy-related policies. Everything at the expense of positive coordination.

7.3.1.1 Leaving the others behind through local capacity development

As a slow onset event, climate change isn't often seen as an urgent matter, delaying its agenda adoption in different contexts (Tosun & Howlett, 2021). While these events develop gradually and may leave the administrations time to prepare strategies and actions, they also create a "perception of lack of urgency", ceding its spot in the agenda to more urgent or crisis-like events (Blair et al., 2018 in Tosun & Howlett, 2021). Therefore, without formal obligations before the Grenelle Laws (the 2004 National Climate Plan set local planning as a voluntary action) and in the absence of a crisis component, climate change was ranked differently amongst French local governments, leading to different timings for its agenda adoption.

The previous section showed that local planning attributions reached subnational governments in 2004 so the country could meet international objectives. While such attribution was one of the main drivers for the early adoption of the Paris Climate Plan, the socialist-green party alliance in the council was also a determining factor by placing the issue high in the priority list and subsequently creating administrative structures to address it. At the regional level the timing was other. After a first proposal from the Green Party in 2007 (Gerardin, 2018), the regional council began climate planning processes in 2009 and finally adopted the first Regional Climate Plan by mid 2011. The region catalogued itself as part of the pioneering *collectivités* by stepping ahead Grenelle's mandatory compliance: "Ainsi la Région Ile-de-France a, comme d'autres collectivités locales, devancé la loi dite « Grenelle 2 » du 12 juillet 2010 qui a rendu l'adoption de Plans Climat Territoriaux obligatoire" (IDF, 2011). However, the region could hardly be considered as an early adopter: the attribution was granted in 2004 (by the National Plan) and decided to elaborate it five years after, far from other regions and

the City of Paris. There is in this case a lag between Paris and the Region's planning, during which the city advanced the region in climate policy.

The city kept raising the issue's profile since the plan's adoption. For instance, by 2008 the title of the Deputy Mayor for the environment was renamed to reorient its functions to sustainable development and climate planning (*adjoint au Maire en charge du développement durable, de l'environnement et du plan climat*).¹⁰¹ Moreover, the city went through organizational restructurings, and continuously devotes human and financial resources to address climate affairs. By mobilizing such resources, the city has increased its local capacities, gradually gained expertise, and thus placed Paris ahead of the region and other IDF *collectivités*. For instance, the Agence d'écologie urbaine (AEU) went from 33 agents in 2002 to 98 by 2017. The climate Plan, formulated by such organization, is the top environmental priority with the largest network of agents (65) throughout the city's administration (Inspection Générale, 2017). They oversee, monitor, and report to the AEU their organizations' climate-related actions. Additionally, the Paris Council created in 2011 the *Agence Parisienne du Climat*, as the *operational arm* of the climate plan. Among other functions, the agency develops prospective studies, disseminates information, gives advice to citizens and territorial actors, and implements measures for energetic renewals on buildings. The organization is financially supported by several actors, such as the ADEME and till 2016 the Regional Council, although the City of Paris contributes with more than 50% of its budget (Inspection Générale, 2017).

Finally, to improve internal coherence, the Mayor created the Chief Resilience Officer that later transformed into the General Delegate for Ecological Transition and Resilience (*Délégué Général à la Transition Écologique et à la Résilience*) in charge of coordinating the implementation of climate, resilience and air quality policies. These measures show that the city continuously raised the issue's profile by devoting different types of resources. All this put Paris in an advantageous position because it began building and strengthening its competences earlier than the Region and other Île de France actors. This also meant that for some time, Paris was going by itself developing its strategy to meet national objectives. As shown later in this section, the city's *fonctionnaires* – and even the regional officers – perceive the city as more

¹⁰¹ Célia Blauel currently holds this position as Adjointe à la Maire de Paris en charge de la Seine, de la Prospective Paris 2030 et de la Résilience. According to the City of Paris, she is in charge of all the affairs linked to environment, sustainable development, water, water channel policy, the territorial climate-energy plan, and the ecological transition. (Retrieved march 10 2021 from <https://www.paris.fr/pages/blauel-celia-2225>)

technically advanced, capable of achieving its objectives alone, making coordination with the region and other *collectivités* difficult to achieve.

7.3.1.2 *No need of others: local actions with national ties, and international effects*

The second factor isolating the city's actions is the problem global outreach. This means that actions from all the government levels are not territorialized, they are rather summed up to reach national targets and contribute to reduce the world's GHG emissions. Since the 80s, the State implemented national policies related to nuclear energy, green taxes, and regulations to meet internationally agreed objectives. As the first section of this chapter shows, the State involved the *collectivités* with the purpose of meeting the country's commitments because it was lagging on its emission reduction targets. Within its competence reach, the city designs and implements policies to meet its own targets, linked to national objectives and reducing the world's GHG emissions. Therefore, the city's contribution to decrease global GHG emission sums up to other actions at all the government levels to meet internationally defined targets: it's about who does what within its territory to reduce its emissions, aggregating all the efforts. This leads to a recognition that all the actions matter but it does not necessarily imply to do it together, as long as it contributes to the achievement of national targets.

As originally seen by the city, its contribution on GHG emission reduction was to fight “global pollution” just as the early Paris Council debates and the green party's 2001 platform show (see section one in this chapter). While the problem knowledge and its effects have gone through considerable breakthroughs in the past 20 years, the link between the local actions and its global impacts remains paramount in local climate policy motivations. The introductory remarks by Anne Hidalgo in the 2018 Paris Climate Plan highlight the city's commitments and the plan's contributions to achieve the objectives of the COP 21,

“Ainsi et comme nous nous y étions engagés lors du Sommet des élus locaux pour le climat organisé à l'Hôtel de Ville en 2015, le nouveau Plan Climat Air Énergie de la Ville de Paris est porteur d'une ambition forte : faire de la capitale une ville neutre en carbone et entièrement convertie aux énergies renouvelables d'ici 2050. Pour y parvenir, la mobilisation de tous les acteurs – publics, privés, associatifs et citoyens – du territoire est indispensable ; il en va de l'atteinte des objectifs fixés dans l'Accord de Paris lors de la COP21” (Ville de Paris, 2018, p.2).

Nowadays, the city places itself within an international dynamic whose actions are therefore linked to global contributions. As the above quote shows, the 2018 Climate Plan locates the

city's actions in the international discourse to meet the COP 21 objectives, and not into a territorial issue, raising itself as a leader to "strengthen the cities' voice in climate diplomacy". Paris is then a global actor in climate policy rather than part of the country's mechanism to contribute to reduce GHG emissions,

"Enfin, l'action climatique de Paris s'inscrit dans une dynamique globale, aujourd'hui incarnée dans l'Accord de Paris sur le climat et partagée avec de nombreux autres acteurs et territoires à l'échelle de la Métropole du Grand Paris, en France, en Europe et dans le Monde... La Ville de Paris a développé des actions spécifiques à destination de territoires et populations plus vulnérables, telle que la contribution de la Ville au Fonds Vert des Nations Unies, et s'est fortement engagée dans de nombreux réseaux de collectivités (Energy Cities, C40...) pour renforcer la voix des villes dans la diplomatie du climat" (Plan Climat de Paris, 2018, p. 8).

In addition to the local-global links, the plans reveal the city's negligible territorial orientation, leaning the problem to a metropolitan scale. The above quote from the latest climate plan places the city's actions as a shared concern with the *Métropole du Grand Paris* and leaves out other scales, such as the region. This represents a relevant change in comparison to the first territorial plan of 2007 that considered the need for coordination between the Region, the State and the European Union. It reads,

"L'action de la Ville de Paris, exemplaire comme elle se doit d'être, s'inscrit dans une dynamique urbaine régionale et métropolitaine. Pour une réduction optimale de la production de gaz à effet de serre, il est nécessaire d'articuler les orientations volontaristes de la Ville et celles de la Région Île-de-France, de l'État et de l'Union Européenne" (Plan Climat 2007, p. 3).

That was the only time one of the local plans considered the region's action instrumental to reach city's objectives. As the below quote shows, the city started to lean towards a metropolitan view since 2012. This takes place in a context where the metropolitan project was consolidating. A couple of years before, the State introduced the Greater Paris Project and around the same time, Major Delanoe formalized its organization "Paris metropole" (see chapter 2). The result of this is that by the 2012 plan, the city was already considering acting at the metropolitan scale, leaving out other *collectivités*,

"En retissant aujourd'hui les liens entre la capitale et la nature, nous permettons non seulement aux Parisiens de profiter d'un cadre de vie quotidienne, propice à leur

épanouissement. Nous dessinons la trame nouvelle d'un progrès urbain destiné à se diffuser rapidement dans toute la métropole" (Plan Climat 2012, éditorial by Anne Hidalgo).

"Tous les acteurs de Paris et de la métropole, des plus grandes entreprises aux citoyens en passant par la puissance publique, doivent se mobiliser" (Plan Climat 2012, p. 7).

Changes in the problem's territorial framing reveal the city's focus on the metropolitan scale and its distancing from other subnational actors. One could argue that the city's orientation towards the metropolis could be mainly due to the partisan differences with the region. However, the Parisian problem view as a metropolitan issue dates from before the arrival of the republican majority to the regional council. It was more an effort to consolidate climate policy as a metropolitan affair, where Paris can extend its influence and leave out regional interference, no matter the party color. However, as it is further analyzed, the gap widened with (1) the creation of the Greater Paris Metropolis, where the city has more maneuver margin to expand its influence zone and (2) the 2015 political changes at the regional level.

7.3.1.3 *A comfortable situation at the expense of joint actions*

The timing of the agenda setting process and the problem's local/metropolitan-global links fostered the city's isolated actions. The voluntary character of the first local plans and the slow onset features of climate change led to differentiated agenda timings. Adopting the issue before other *collectivités*, and notably the region, placed the city ahead of them by building a series of capabilities, up to the point that it could meet its objectives by itself without interacting with other actors. Additionally, the city catalogues its actions as linked directly to national objectives and contributing to a global problem, therefore, besides the metropolis, it does not need to go together with any other government level to outstand its contributions.

The state of the affairs creates a comfortable situation for the city and the region. On the one hand, being more advanced gives the city *carte blanche* to keep its climate policies because reaching its emission targets will contribute to fulfill regional and national objectives. On the other hand, in addition to the positive spillovers, the region can focus on other territorial measures because "they don't have to worry about Paris". This sort of equilibrium comes at the expense of joint actions going beyond negative coordination. From the city's administration viewpoint, their expertise and longstanding capabilities put them ahead of the Region and other *collectivités*, meaning that they don't need other actors to meet their climate policy objectives. According to a city's civil servant working at the *Agence d'Ecologie Urbaine*, and former

regional officer in the climate change division, the city's actions are beneficial for the region, even if it does it by itself. However, according to the officer, this is a one-way street because Paris doesn't need the region,

“Pour le moment il n'y a pas de gros liens entre les deux. Ce qui se passe aussi c'est que la ville est toujours en avance sur la région. La ville de paris historiquement est très en avance sur tous les enjeux climatiques. La dernière délibération énergie pour donner un exemple concret, la région dit neutralité carbone à 100% d'énergies renouvelables et neutralité carbone à 2050. C'est que la ville avait fait voter sur son territoire l'année d'avant. On va dire, disons que si la ville de paris tient ses engagements c'est une très bonne nouvelle pour la région mais ... on est tellement important tellement gros sur le territoire que n'a pas vraiment besoin de la région” (Interview 78).

While this testimony could be biased, the region has a similar perception. The fact that Paris doesn't needs the region, gives it some maneuver margin to work by themselves and not to worry about the city. They don't have to monitor its objectives because certainly they will be more ambitious, so the region can put its attention elsewhere, where it can exert more influence,

“[A] aujourd'hui l'impression que j'ai c'est que Paris continue sa route parce qu'ils ont la puissance pour le faire et ils ne tiennent pas compte de la région, ils ne tiennent pas compte de la MGP non plus... La ville de Paris est en avance donc de toute façon d'ici à ce que tout le monde l'ait rattrapé va se passer du temps, donc en fait voilà ce qui montre bien que quand on prend l'avance en fait on se dégage des marges de manœuvre donc du coup Paris est assez autonome sur la question là” (Interview 84).

Both quotes show the city and region's perceptions on how their actions affect each other. This is product of the following causal mechanism. First a global *référentiel* related to the State's need to keep control over certain issues – with the purpose of meeting international commitments in this case – led to a piecemeal engagement of the subnational governments. Due to the presence of the Green party in the Hôtel de Ville, climate policy got into the city's agenda before the Region and other *collectivités* of Île de France. During that time, Paris developed expertise and capacities, advancing other local actors. All this together with the problem's global outreach created the notion that the city's contribution to fight climate change could be achieved without developing joint actions with other local governments and the region. At the end, this created a comfortable situation between the city and the region in which the former has no regional interference in its climate policies because they contribute to the

general decrease of GHG emissions, and in turn, the region targets its actions to other territories. This, however, just explains partly why the interactions between the actors in the Parisian region are kept to a minimum. The next section shows the effects of different problem framings and power distribution in the interactions.

7.3.2 Institutional failures, legacies, changes...and politics

Climate policy's institutional framework has failed to formally make planning processes compatible between government levels. Before the Grenelle laws, multi-level planning compatibility was not considered and instead, the State privileged long-distance steering. When territorial plans became mandatory, other than the legal obligations, there were neither incentives nor enforcement procedures that ensured any kind of subsidiarity between the government levels. Additionally, the timing for each plan makes difficult for the different processes to converge. Albeit the institutional flaws, the evidence shows that the city and the metropolis coordinated their planning processes, while the Region, which was mandated by the Law to update its *Schéma*, decided not to. Instead, the regional council issued parallel plans to break up its ties with the State and tried to make other actors to compel with its own "illegal" instruments using both, a narrative based on the institutional mandate to promote territorial cohesion, and the institutional ambiguities of its designation as *chef de file*. However, more than institutional flaws, politics is the variable that explains planning mismatches. Paradoxically, this has little impact on coordination, even when the actors have different problem approaches (as seen in the last section). The reason is that even if there are no interactions, following each one's objectives has positive aggregate outcomes without negative spillovers.

7.3.2.1 Planning mismatches without incoherence

When the 2004 National Climate Plan set up territorial planning, it didn't consider subsidiarity or compatibility between government levels, other than its alignment with national greenhouse gas reduction targets. ADEME's first guide to elaborate the territorial climate plans is ambiguous in that respect and just indicates that the *collectivités* should be prepared to interact with other actors. While it left ground for multi-level collaboration, it's mostly related to internal governance,

“[V]otre collectivité locale n'est pas en mesure de décider elle-même de toutes les décisions, grandes et petites, prises par les acteurs privés et publics situés sur votre territoire : ménages, entreprises, commerces, administrations, associations, etc. Vous

devez donc vous donner les moyens d'animer votre politique "Climat" à l'échelle du territoire, ce qui suppose souvent une souplesse et une flexibilité dont ne dispose pas toujours l'administration municipale" (ADEME, 2005, p. 26).

Regarding the general objectives, the same guide set generic guidelines on the sectors where the *collectivités* should act, raising awareness for an emission inventory to keep track of their progress. Later on, the 2006 update of the National Climate Plan implemented a "trophy" for the localities that showed exemplary practices during the plan elaboration. Rather than promoting subnational plan integration, the State's long-distance steering to keep control of the local policies continued through ADEME's technical actions and territorial distinctions. Under such ambiguous circumstances and without obligations or guidelines for planning compatibility, there were no institutional considerations that pointed to a State-Region-City planning integration.

The Law Grenelle 2 was supposed to change that, first, by making territorial planning mandatory and second, by requiring coherence amongst all the government levels. The 2010 law mandated the *Plan Climat-Energie Territorial* for agglomerations of more than 50,000 inhabitants, which in turn should be compatible with the *Schéma Régional Climat-Air-Energie* (SRCAE), jointly elaborated by the Region and the State through the regional prefect. Consequently, the SRCAE should fixate regional guidelines to climate change mitigation, in line with France's commitments at the international level: to reduce by four its GHG emissions between 1990 and 2050 (Loi 2010-788, Art. 68). The main issue with the new law was that it assumed formal coherence through planning subsidiarity without setting incentives or enforcement procedures to achieve it.

To fulfill Grenelle's planning obligations, the 2012 Schéma for Île de France incorporated the core objectives and actions from the recently adopted regional climate plan while the City of Paris updated its 2007 climate plan. Whereas the law compels the local alignment with the *Schéma's* general objectives, it does not set any obligation for a bottom-up participation, other than those between the region and the State. The only attribution granted to the *collectivités* on the SRCAE is to give their opinion once the region makes public the plan's draft (Décret no 2011-678). Thus, without any type of incentive, there was no prior city-region work during the *Schéma's* elaboration, even if both had similar adoption timelines.¹⁰² In the discussions at the Paris Council, right-wing councilpersons complained that their advice on the soon to be

¹⁰² The Paris Council adopted the 2012 plan in December 11, 2012 and the Regional Council adopted the SRCAE on November 23rd, 2012.

approved SRCAE will most likely not be taken into account: “Un tout petit mois finalement nous sépare de l'adoption définitive de ce Schéma régional et je ne suis pas sûre que l'avis de notre collectivité soit réellement intégrée aux arbitrages de la Région Ile-de-France”(Débat/ Conseil municipal/ Octobre 2012). While their position could be biased due to partisan differences, Gerardin (2018, p. 135) compiled a testimony from a City of Paris employee that acknowledges the disconnection during the plan's elaboration,

“C’était [l’élaboration du PCET de Paris et du SRCAE d’Île-de-France] à la même période mais pour autant il n’y a pas eu un travail pour faire en sorte de faire coïncider les objectifs parisiens avec les objectifs du SRCAE, pour différentes raisons, déjà le périmètre est tellement différent que ça paraît logique. Donc il n’y pas eu de travail conjoint, mais on s’est rendu compte que finalement on allait dans le même sens.”

In the absence of formal incentives to coordinate the plans, none of the actors had many reasons to match their processes. However, as the above quote acknowledges, both plans were in the same direction. That is not difficult to imagine because, as mentioned above, Paris pioneering actions and the resources devoted to tackle the problem put the city ahead on climate policy, setting more ambitious GHG reduction targets than most of its counterparts and even the State. For example, the city set the objective to reduce greenhouse gases by 100% in 2050 while the State did it for 75% (see table 7.2). In other words, the region and the State don't have to worry about Paris aligning to the SRCAE's objectives and the city won't face any outside intervention. Paradoxically, under these conditions, the obligation of planning coherence at the objective level is met without any kind of joint work. As the above quotes show, regional and city level, employees highlight such planning coherence at the expense of positive coordination, which is in turn a result of the fixed objectives and the leading Paris actions.

Table 7.1 National and local climate change plans

Plan	Originated by	Year	Actors	Related to other plans
French Program to Prevent Climate Change	Rio Conference 1992	1995	The State	No
National Program to fight Climate Change	-	2000	The State	-
National Climate Plan	-	2004	The State	-

Plan Climat de Paris * Not mandatory	National Climate Plan 2004	2007 (Decided 2005)	City of Paris	No
Plan Régional pour le Climat * Not mandatory	National Climate Plan 2004	2011 (Decided 2009)	IDF Region	No
Update to the Plan Climat de Paris 2007	Law Grenelle 2 2010	2012 (decided 2011)	City of Paris	Plan Climat de Paris 2007
Schéma Régional Climat Air Energie	Law Grenelle 2 2010	2012	IDF Region and the State	Plan Régional pour le Climat 2011
Plan National d'Adaptation au Changement Climatique	-	2011	The State	No
Plan Climat	-	2017	The Sate	National CLimate Plan 2004
Plan Climat Air Energie Territorial	Law Grenelle 2 2010	2018	City of Paris	Plan Climat de Paris 2007
Plan Climat Air Energie Metropolitain	Law MAPTAM 2010	2018	Grand Paris Metropole	No

Source: Own elaboration

7.3.2.2 Adding up complexity to the interactions: new actors and political changes.

The metropolitan scale created in 2014 plus the 2015 regional elections complexified planning processes. Let's start by the metropolitan issue. In addition to the institutional flaws identified above, the introduction of a new scale caused timing mismatches. The MAPTAM act leading to the creation of the *Métropole du Grand Paris* set as one of its competences the metropolitan PCET, in coherence with national objectives – regarding GHG reduction, energy efficiency and renewable energy production. Consequently, the metropolitan plan must be coherent with the Schéma, creating now three planning subsidiary levels at the Region-State, metropolitan and city scales. According to diverse local and regional public officers the plans need to follow a particular timing to achieve such coherence: the *Schéma* should be elaborated first, then the metropolitan PCAET and finally the city's plan; and the fact they don't, poses a challenge for coordination (Interviews 47, 51, 81 and 84). Indeed, they all follow different timetables. In 2012, almost simultaneously, the region and the State adopted the SRCAE and Paris updated

its plan. Later on, with the MGP in the picture, the City issued its new territorial climate plan in 2018, almost at the same time as the metropolitan. The SRCAE remained unchanged since 2012.

Despite the simultaneous elaboration of local and metropolitan plans, and the opinion of the interviewed politicians and public officers, timing mismatches were not a hindrance for their convergence. For example, Paris carried out its internal concertation process between November 2016- March 2017, while the MGP did so between March and July, 2017. That could represent a problem in terms of respecting vertical coherence. However, as the below quotes show, both councils recognize their plan's coherence and their active participation in one another's elaboration process. Albeit different procedural timings, the Metropolis issued a first version in December 2017 that acknowledged the territorial observations from the *collectivités* composing its territory (at least the observations coming from Paris), and Paris adopted its plan in March 2018. Even when the city adopted its final plan some months before the metropolis, its comments were already considered in the latter's plan project a year earlier; conversely, the MGP gave its approval for the Parisian plan. The Metropolitan Council considers the city's contribution and emits a favorable opinion to the Paris PCET, acknowledging that it meets all the coherence requirements,

“Le Conseil de la Métropole du Grand Paris après en avoir délibéré: Salue l'ambition du Plan Climat Air Énergie de la Ville de Paris, qui par ses objectifs et ses actions contribue à la mise en œuvre de la stratégie métropolitaine ; Prend acte de la contribution de la Ville de Paris au Plan Climat Métropolitain, contribution dont le contenu est convergent avec le plan d'actions métropolitain qu'elle a contribué à alimenter” (Conseil Métropolitain de Grand Paris).

Neither the lack of incentives nor formal timing mismatches challenged the city-metropolis planning processes. However, when looking at the Regional-metropolitan planning relationship the story is quite different, where institutional ambiguities and scale differences play an important role. Under the socialist majority, the regional council elaborated the first regional climate plan in 2011 that was later integrated into the 2012 SRCAE. According to the *Code de l'environnement*, the Schéma is supposed to be evaluated five years after its publication and, if necessary, the prefect and the region's executive can decide to issue a revised version (Code de l'environnement, R222-6). Following this timeline, the plan had to be evaluated by end-2017 (before the metropolitan and Parisian PCET), however, the renewed republican regional council didn't set up any procedure of that kind. Instead, it issued first in

2016 the plan *Changeons d'air* (see chapter 5) and in 2017 the *Stratégie régionale énergie-climat*. With those instruments, the new right-wing majority sought to insert their view by breaking up with the previous regional orientation and overcoming the State's co-elaboration. In the absence of incentives, the regional council was able to oversee these obligations.

For the region, *Changeons d'air* and the *Stratégie énergie climat* substitute the SRCAE; in this logic, the metropolitan and territorial plans should be aligned to the actions and objectives indicated in such documents. Therefore, the region conditioned its approval of the PCAEM to its alignment with the *Schéma's* replacing plans. An official communication from Valérie Pécresse to the President of the Metropolitan Council, Patrick Ollier, where she transmits the region's opinion of the PCAEM's, indicates that general objectives are coherent between both scales: "les objectifs de la métropole s'inscrivent globalement dans ceux fixes par la Région" (Pécresse, 2018). An in-depth look to the deliberation reveals how the region systematically seeks to orient the metropolitan actions to the regional self-adopted strategies rather than with the SRCAE, co-elaborated with the State in 2012. By doing this, the region constantly emphasizes its role as *chef the file* in climate, energy and air quality and therefore all "lower-tier" documents and actions should be adjusted to match the regional ones,

"Alors que le plan « changeons d'air » a été adopté en juin 2016 par la Région, le projet de la Métropole n'a pas été articulé avec le contenu du plan régional qui n'est pas cité dans le chapitre dédié à l'articulation du PCAEM avec les autres plans ou programmes. Dans un contexte où depuis la loi MAPTAM du 27 janvier 2014, la Région est chef de file pour la qualité de l'air, le climat et l'énergie, il est important que le contenu du projet de PCAEM soit modifié pour prendre en compte le plan « changeons d'air ... La Région dans sa stratégie énergie-climat, a décidé de lancer des appels à projets sur toutes les énergies renouvelables et de récupération en privilégiant les technologies innovantes. Il serait intéressant que la métropole relaie ces appels à projets et puisse intervenir en appui des dispositifs régionaux" (Pécresse, 2018).

Despite the region's insistence, there is no law, regulation or other official document at the State level recognizing the validity of the regionally issued documents. That is to say that none of these documents are legally binding for the metropolis or any other government inside Île de France, so their plans are not compelled to converge with *Changeons d'air* or the *Stratégie Énergie Climat*. State officers from the climate division of the Ministry for Ecological Transition confirm the lack of regulatory value of the region's strategies, hence, the *collectivités* have no obligation to stick to those plans,

“Aujourd'hui ils ont approuvé une stratégie régionale climat mais ils n'ont pas révisé leurs documents de planification réglementaire. Les anciens schémas régionaux climat air énergie ils étaient co-élaborés État-région. Aujourd'hui la région a élaboré une stratégie seule, et la suite logique serait que ça alimente la révision du schéma de planification dans lequel l'État sera partenaire sauf que pour l'instant pour des raisons politiques la région est un peu réticente à réviser son SRCAE et à travailler avec l'État. Donc du coup ces objectifs les objectifs de sa stratégie climat n'ont pas de valeur réglementaire. Il n'y a pas d'obligation d'y faire référence dans les documents de planification des collectivités qui la composent” (Interview 54).

The region, however, just as in air quality policy (chapter 5), uses the institutional ambiguities to support its steering role and, in consequence, creates a narrative to align local planning to the regional documents. The MAPTAM law created the *chef de file*, a coordinator position in charge of easing the links between the different territorial plans. In its article 3, the other law of territorial organization, NOTRe, defined this function as follows : “La région est chargée d'organiser, en qualité de chef de file, les modalités de l'action commune des collectivités territoriales et de leurs établissements publics pour l'exercice des compétences relatives : ...3° Au climat, à la qualité de l'air et à l'énergie.” Its general purpose then is to give the actor the competences to organize the modalities of collective action between the *collectivités*. However, the extent to which it fosters coordination is debatable. Even for the regional officers, the *chef de file* is an ambiguous term – “la loi dit les régions sont chefs de file sur ce sujet-là alors chef de file personne ne sait ce que ça veut dire” (Interview 84). Instead of fostering coordination, the region uses the attribution to justify its territorial prevalence.

To what extent the region fulfills its coordinator's role has mixed internal and external opinions. For the Île de France Prefect's office in charge of environmental affairs there is no coordination in climate change policy because the interactions themselves are minimal and the region does not fulfill its coordinator role. When asked about the coordination mechanisms on climate change policy, a fonctionnaire from such office indicates that they even must exert some pressure to the region to set up coordination committees,

“Je pense que sur le changement climatique pour ce que j'en ai vu il y a très peu d'action donc du coup il y a très peu de coordination. Et je pense que l'enjeu c'est de réussir à initier quelque chose, à initier une dynamique. Il faut qu'on voie comment on peut travailler État-ADEME-DRIEE et Conseil Régional déjà pour mettre un peu nos forces en commun et comme on peut engager quelque chose. Mais pour l'instant, à mon avis,

il n'y a rien. Après il y a la volonté de mettre en place un COPERTEC [*Comité permanent Etat-Région de la transition énergétique et du climat*] donc ce truc là on essaye de l'engager. Mais du coup c'est une idée de la région mais c'est maintenant l'État qui pousse la région à le faire parce que la région bouge plus. Il'a dit ce serait bien de faire un COPERTEC, puis voilà s'arrête là” (Interview 56).

The public officer does not only stress the little coordination but in general, any type of interaction between the government levels. And the one supposed to incentivize those interactions seems to be absent. Whether its coordinator role has been effectively carried out is not an isolated perspective coming from the prefectural office. It even has also mixed perspectives from within the region. For a high-level officer in the Division for Territorial Cohesion of Île de France, the region is the one in charge of joining up the territorial action to align it with the general objectives,

“[D]ont les collectivités, c'est nous qui sommes chef de file. Ça veut dire que c'est nous convoqueront les réunions, c'est nous qui réunissons tout le monde, c'est nous qui établissons des feuilles de route pour dire ben voilà qu'est-ce que les communes vont faire, qu'est-ce que les départements sont prêts à faire, qu'est-ce que nous on va faire” (Interview 57).

In a more critic approach, another regional officer inside the division, acknowledges that the region does not fulfills this role. Instead, Île de France claims its position as *chef de file* to orient policy according to its own views,

“[L]a région a décidé que son rôle ne devait pas être de coordonner les politiques. Donc elle a défini ses objectifs, donc voilà j'ai défini des objectifs maintenant tout le monde doit s'aligner je suis chef de file et je vais vous aider financièrement mais il n'y a pas du tout...la région n'a pas pris son rôle de chef de file en matière de coordination, d'animation” (Interview 84).

Both responses show how, according to the regional executive, the *chef de file* status grants them the power to define the path that should be followed and distribute territorial tasks. While the testimonies seem to be contradictory, they are rather complementary: more than a coordinator role respecting local autonomies, the region seeks to steer territorial action aligning the *collectivités* to its view. In this way, the competence granted by the MAPTAM law, reinforces the region's institutional mandate to bring territorial cohesion inside Île de France. Such approach is evident in the Regional Council's advice of the metropolitan climate plan,

arguing that, as *chef the file*, the region must make sure local plans align to its strategies in order to preserve territorial cohesion,

“Pour mener cette révolution [towards renewable energies], la Région entend jouer pleinement le rôle de chef de file sur l'énergie, l'air et le climat comme le lui a confié la loi. C'est pourquoi le plan climat air énergie de la Métropole du Grand Paris doit s'inscrire en cohérence avec la nouvelle stratégie régionale....La Région est garante des équilibres et des complémentarités entre le territoire métropolitain et les autres EPCI qui composent l'Ile de France. Elle a par ailleurs un rôle pilote pour les actions de portée régionale ou demandant une coordination régionale” (Pécresse, 2018).

As the quote shows, the regional council uses its role of *chef de file* and the mandate of promoting territorial equality as narratives to justify the *Métropole's* attachment to the regional plans. Unsurprisingly, the metropolitan deliberation to adopt the PCAEM refers to the 2012 SRCAE and obviates any other regional plan. Within the metropolitan climate plan there is no trace of any mention to *Changeons d'air* or the regional climate-energy strategy. Other assessments, such as the State's Environmental Authority's evaluation made remarks regarding the convergence between the PCAEM's project and the SRCAE, also disregarding the other self-initiated regional initiatives,

“En application de l'article L.229-26 du code de l'environnement, le PCAEM doit être compatible avec le schéma régional climat air énergie d'Île-de-France (SRCAE) approuvé par arrêté du préfet de région le 14 décembre 2012 après son adoption par le Conseil régional, ainsi qu'avec les objectifs fixés par le plan de protection de l'atmosphère d'Île-de-France (PPA) approuvé par le par le préfet de région le 31 janvier 2018...En termes d'analyse, le rapport souligne les différences méthodologiques entre le PCAEM d'une part et le SRCAE et le PPA d'autre part, qui rendent difficile la comparaison de certains objectifs (par exemple des objectifs assignés à des secteurs d'activités distingués dans le PCAEM mais regroupés dans le SRCAE). Il conclut toutefois à la compatibilité réglementairement attendue en mettant en valeur les ambitions du PCAEM” (MRAE, 2018, pp.6-8).

The result of these interaction dynamics is, on the one hand, subsidiarity between metropolitan and city's planning with an unevaluated and probably outdated SRCAE; and, on the other hand, partially disconnected regional strategies with their own lines of action and objectives. While timing mismatches do not favor a subsidiary planning, disconnections attributable to

institutional failures are more the result of politics, linked to the region's notion as the scale in charge of territorial cohesion, and reinforced by ambiguities used by the actors to lean the balance of power.

Similar to the air quality case, these conditions open a possibility for Paris to extend its area of influence into the metropolitan territory. In fact, the city's governing coalition sees the Métropole de Grand Paris as an instrument to extend their climate objectives. A socialist councilperson, Catherine Baratti-Elbaz, stressed that the City Council endorsed the coherence of the metropolitan PCET with the city's plan, "C'est par exemple le cas avec l'adoption à l'unanimité du Conseil métropolitain de décembre dernier du Plan Climat Air Energie métropolitain dont nous avons approuvé la cohérence avec celui de la Ville de Paris" (Débat/ Conseil municipal/ Juillet 2018), while the environmental code states it should be the other way around: the local plan must be elaborated to be coherent with the metropolitan. In a similar fashion, a councilperson from the office of the Deputy Mayor for Environmental Transition argues that metropolitan governance is key to "pursue their Parisian ambitions". According to the politician, the city contributed largely to the PCAEM because they already had their plan. In this case, rather than hindering city-metropolitan coordination, timing favored the city of Paris to keep some control over metropolitan planning,

"Pour Paris un gros enjeu métropolitain est de réussir à investir la gouvernance métropolitaine pour aligner on va dire nos ambitions parisiennes à l'échelle métropolitaine on y arrive plutôt bien. Je pense qu'au niveau métropolitain on arrive à faire beaucoup avancer les choses. Il y a eu un plan climat air énergie métropolitain qui a été adoptée pour lequel Paris a beaucoup contribué en termes d'élaboration. Nous en plus on avait fait notre plan climat avant donc du coup c'était bien" (Interview 51).

7.3.2.3 *Does politics matter or "much ado about nothing"?*

Different problem definitions between the city and the region are the last explanatory factor for the negligible interactions in local climate policy. Energetic transition has been the State's high priority since the early eighties and only later, after the Rio Summit and the Kyoto Protocol, it sought to pair it up with the decrease of greenhouse gas emissions. The city and the region have split views in the issue. For the city, greenhouse gas reductions are related to climate change mitigation efforts, coming from energy generation but also other sectors such as transport. On the other hand, the energetic transition for the region follows an economic rationale linked to energy costs in which GHG reductions are only positive spillovers and not

a target by itself. Despite these differences, there is no major conflict over the means and the main GHG reduction targets for two reasons: (1) “clean” energy-related measures have no negative spillovers, and (2) the targets of each government scale are equal or more ambitious than higher levels, hence there is no need of accusations, criticisms, or interferences with each other. Interactions here oppose to air quality policy coordination dynamics, where contrasting approaches towards car-use and driving restrictions led to conflicts and incoherencies between most actors within the Parisian region. In climate policy the absence of joint work in planning at the city/metropolitan level do not affect the region or State’s objectives and vice-versa, leading to negative coordination.

In the quote from below a civil servant from the Urban Ecology Agency’s division in charge of elaborating the climate plan gives a good summary of the general dynamics in climate change policy: first the leading position of Paris that makes the city to develop its own policies; second, the institutional constraints for simultaneous planning; and third, that despite these factors keep interactions to a minimum the goals are similar. The quote is relevant due to the officer’s position as a city employee, recognizing that there are no mismatches or interferences between the *collectivités*. This is related to the “comfortable situation” explained above but also to the lack of negative spillovers coming each other’s actions,

“Chaque collectivité a ces temporalités. C'est ce que je te disais c'est que la Ville de Paris est légèrement en avance sur les autres. La Ville de Paris a fait son plan climat, la métropole a fait son plan climat après et entre les deux la région est venue, sachant que normalement la ville doit respecter la métropole qui doit respectait la région. Mais ce qui vient faire que ce n'est pas si grave, c'est que on a des enjeux extrêmement forts et que finalement sur les enjeux tout le monde se retrouve là-dessus en fait. En gros la région dit quelque chose qui s'approche de ça. J'ai pas les termes exacts mais c'est 100% énergies renouvelables et neutralité carbone, alors les moyens d'y arriver vont être un peu un peu différentes” (Interview 78).

A closer look to the national and territorial plans shows that all the government levels follow similar paths to become carbon neutral by 2050, an objective fixated in the 2017 National Climate Plan. Table 7.2 shows that their mid-term objectives for 2030 are quite similar, with only the region falling behind in energy consumption targets. Regarding the greenhouse gas reduction, the region and the metropolis match the national objective and only the city of Paris set a higher standard to reduce by half its emissions. Even more so, the city and the region set

the objective to use 100% renewable energies by 2050 (which was probably what the above-quoted civil servant identified as convergent objectives).

Table 7.2 Deadlines to meet GHG reduction targets and energy objectives

Actor	GHG reduction targets		Reduction on energy consumption		Use of renewable energies	
	2030	2050	2030	2050	2030	2050
State	40%	75%	32%	50%	33%	50%
Region	40%	75%	20%	40%	40%	100%
Metropolis	40%	80%	30%	50%	55%	60%
City of Paris	50%	100%	35%	50%	45%	100%

Source: Own elaboration with information from the 2017 National Climate Plan, the 2018 National Low Carbon Strategy, the 2018 Energy-Climate Regional Strategy¹⁰³, the 2018 Metropolitan Territorial Climate Plan, the 2018 Climate Plan from the City of Paris and Radanne (2015)- Contribution de la Région Île de France pour la COP 21.

As the fonctionnaire indicates, the region abandoned the focus on climate change to concentrate on renewable energies. The region's budget reveals that from 2015 to 2016 the "climate-energy policy" section went from 58.8 million euros to 39.5 and by 2017 the word climate was removed from the budgetary label leaving it as "energy policy" (Gerardin, 2018). Additionally, the region cut its allocation to the *Agence Parisienne du Climat* by considering it an "association sans intérêt direct pour les franciliens" (Île de France, 2016). The organizational structure also suffered modifications. One of the main regional operational divisions¹⁰⁴, *Amenagement durable*, disappeared, and the climate change area was relocated into the Direction for the Environment, attached to the *Pôle cohésion territoriale*.¹⁰⁵

These changes altogether evidence two things. First, the shift from a climate-energy notion to energy policy alone that has GHG reduction as a positive externality rather than a clear link with climate change. Second, organizational restructuring shows how climate policy inserts within a wider conception of territorial cohesion instead of an environmental policy seeking coherence along the territory. This goes in-line with the repeated discourse of the regional executive related to the preservation of regional equilibrium. As mentioned earlier in this

¹⁰³ As mentioned above, the Regional Strategy is not legally binding. However, this is the one used by the region.

¹⁰⁴ Operational Divisions (Pôles opérationnels) are the substantive structures in charge of implementing regional policies.

¹⁰⁵ The Territorial Cohesion Division comprises four directions: Environment, Planning, Territorial Action, and Agriculture, Rurality and Forestry. Climate change is placed in the Direction of the Environment under the "Service transition énergétique, qualité de l'air, bruit, climat".

chapter, to prioritize its focus on energetic transition and break up with the previous executive's policy, the region launched its *Stratégie énergie climat* in detriment of the SRCAE's evaluation and further update.

An important piece of evidence acknowledging the region's stepping out from climate policy comes from a high-level regional officer inside in the Direction for the Environment. According to the fonctionnaire, climate change is not a regional priority. It is more a side-effect of the renewable energy policy that is favorable to GHG reduction. In other words, while transitioning to renewable energies, the region achieves its emission targets, even if it's not its main priority,

“Je pense que dans les priorités politiques, le climat n'est pas une priorité. En tout cas il n'est pas de façon en tant que politique il est en tant que contexte, mais la priorité elle a été mis sur l'énergie ; et elle a été sur un volet considéré dans des politiques énergétiques favorables au climat qui est la transformation d'énergie renouvelable. Donc l'efficacité énergétique est présente dans les objectifs mais elle n'est pas valorisée par une volonté politique forte qui se traduirait par des dispositifs d'accompagnement, etc” (Interview 84).

According to the same regional employee, partisan differences explain the choice of renewable energies to achieve GHG reductions. The fonctionnaire attributes to right wing parties the use of renewable energies to reduce costs, that is, an economic rationale, rather than one linked to sustainability. The evidence presented above makes clear that the right's arrival to the regional council detached the climate component from energy. Can this focus on efficiency be attributed only to a left-right dichotomy or is it really a matter of scale?

“C'est clair donc on voit bien qu'a quand même un couleur politique à tout ça. Aujourd'hui des collectivités qui sont gérés par des exécutifs de droite libéraux ils s'intéressent au développement des énergies renouvelables pour des questions de développement économique, de stratégie d'investissement” (Interview 84).

The region's interest on renewable energies is barely a matter of political color and more an historical concern on costs. The national turnaround during the eighties towards renewable energies resonated locally (Angot & Gabillet, 2015). By the early eighties, the Île de France regional prefect took the decision to fund geothermic installations with the purpose of reducing the *francilienne* dependence to oil imports (Gerardin, 2018), following the abovementioned State's economic rationale. Later on, when the socialists took office in the regional council,

they introduced for the first time a budgetary section entirely dedicated to energy and only later they linked it to climate change (Gerardin, 2018). Then, as mentioned above, after the 2015 political changes the section was exclusively devoted to energy and rather “climatised” by framing it within a climatic lens (Foyer, Aykut, & Morena, 2017). With or without an explicit link between renewable energy and climate change, and despite partisan differences, there has always been a regional interest in the development of renewable energies, which in turn have positive impacts on the GHG reduction targets.

Changes at the regional level have shifted away its climate concern to focus on energetic transition without threatening greenhouse gas reduction targets. In that sense, struggles revealing the lack of joint planning depicted in the previous section don’t affect the general coherence of the territorial objectives. All this leads to policy results that fulfill a common globalizing goal but due to their different rationales, the territorial means to achieve it are different. One way or the other, the State, the region, the metropolis, and the City of Paris have the same general objectives and as opposed to the air quality case, acting through different means does not interfere negatively with each other’s policies. In other words, despite the planning disconnection between these actors, their different means-ends approaches don’t lead to incoherence.

The State keeps its steering position through goal setting and monitoring. Laws, regulations, and national level plans all set general guidelines and targets to which the *collectivités* must adhere. Beyond that, the State makes sure that in fact local plans follow such nationally defined elements without much interference on their means to achieve them. In the absence of incentives and enforcing mechanisms, coordination takes place, in the eyes of state officers from the Ministry for the Ecological Transition and the Île de France ADEME’s division, by making sure that objectives are concurrent and coherent with the national main goals. These testimonies show that despite institutional and political changes, the State’s position towards the subnational governments has barely changed. It focuses on steering territorial action by setting general guidelines and monitoring its advances,

“C'est là qu'on revient aux questions autour de la décentralisation. C'est à dire qu'il y a ce cadre de planification qu'est celui dans lequel les collectivités sont invités à indiquer la manière dont elles vont prendre leur part à l'atteinte de l'objectif national et qui est encadrée par les stratégies nationales, mais avec un lien relativement faible. Et ensuite, c'est dans le cadre des avis de l'État et de la région que chacun va indiquer si

globalement, sur l'ensemble des cibles climat air énergie, la collectivité a au bon niveau d'ambition, donc la coordination elle se fait comme ça” (Interview 54).

“il y a une manière de travailler qui est différente selon les échelles ce qu'on essaye de faire c'est qui et on essaye de s'assurer que puisque nous on est avec les trois interlocuteurs on essaie de s'assurer qu'ils aient une cohérence entre ces trois échelons” (Interview 63).

Coordination, according to a public officer from the Ministry's Office of Climate Affairs (first quote), is more a statutory feature, where the *collectivités* develop their plans according to national strategies and objectives. The State and region's role will be to monitor if local plans adhere to them. ADEME's position is similar. As the second quote reads, they just look away to regional and local plans and make sure they are coherent between them and the nationally defined objectives. If they all contribute, there is no conflict but neither joint action. In other words, there is coherence without interaction.

7.4 Conclusion

The analysis developed in this chapter has shown that low conflict and the lack of joint initiatives led to negative coordination of climate policy in Paris. Ever since the problem got into the local agenda, policy actions have been highly fragmented with the city formulating and implementing actions on its own and the State developing a steering role. These “original” conditions reproduced through time because institutional and political changes were not able to reshape the arrangements and rather reinforced the original disconnection. Following the combination of these factors in relation to the main argument, the chapter yields two main findings related to institutionalized differences in the issue approach and the problem's characteristics.

First, the perception of climate change as a slow onset problem and the State's piecemeal subnational engagement led to different adoption timings between the city and the region. The lack of urgency to address the issue and the voluntary nature of the first climate-related measures created mismatches between both actors. During that time the city enhanced its environmental policy capacities outpacing the region. By the time the latter issued its first plan, the city advanced its climate agenda, and was already developing a second version without the participation of other actors. When both catch up in climate planning, there was already a disconnection between them. In the end, the city's pioneering position and its further developments in climate policy created the conception of being self-sufficient to meet its goals.

In second place, the problem approaches from both scales contributed to this situation. For the city, the climate problem is a non-territorialized, global issue, whose actions contribute to alleviate. In other words, all the local greenhouse gas mitigation efforts add up to meet the country's targets but more importantly, have a global outreach. The city's plans portray this notion. While it initially considered the region's participation, the direction changed to focus on the metropolis as the chosen scale to achieve its global contribution. Besides this "territorial problem framing", the city has always favored a metropolitan policy reach, sometimes even in detriment of its regional effects (see chapter 5). The region's approach to the problem is different. For that government level, the focus on energetic transition has a territorial approach with positive spillovers in greenhouse gas reduction. While there have been periods where the relationship between climate and energy is more evident – notably marked by the political orientation – the region has historically privileged energy policy as a way to reduce costs. Greenhouse gas reduction is then a positive externality of energetic transition but not its primary concern.

Institutional changes were not able to turnaround city-region differences due to design flaws and the creation of ambiguities. Grenelle laws making climate planning mandatory also sought to bring coherence by integrating all the territorial plans to the State-region's Schéma. However, flaws in the institutional design related to the lack of incentives and enforcement procedures didn't encourage joint work during planning processes. When the regional council changed after the 2015 elections, it sought to break up with the previous socialist-green policies and the State's participation. In the absence of incentives to update the Schéma, the region rather issued other planning documents and used its position as *chef de file* granted by the MAPTAM law to demand adherence from lower tiers to its new strategies. Such institutional ambiguities in combination with the region's political changes reinforced the already marginal linkages between the actors.

Neither the lack of incentives nor timing mismatches had any effect in the city-metropolis planning processes. Despite their different political orientation (a republican metropolis and a socialist Paris) both councils agreed on the coherence and even contributed to elaborate each other's plans. This is related to the metropolitan problem's approach and the "metropolis as a mean" to achieve the city's objectives and expand its area of influence. More than a coordination hurdle, timing seems to have reinforced this aspect. By elaborating its plan in advance, the city made sure that the metropolitan was coherent with it, rather than the other way around just as it is formally established.

Despite these differences, there are no major conflicts, interferences, or objective mismatches. Through steering instruments, the State defines the general objectives and guidelines which must be followed by all the actors. The city's leading position and its ambitious objectives create a comfortable situation for all the actors. On the one hand, the City of Paris gets rid of any type of regional intervention and develops freely its own policies; on the other hand, the region can focus on other territorial actors without worrying about Paris, as its actions would also generate positive regional effects, contributing to the regional global GHG reductions. Neither does different problem approaches have negative effects in negative coordination because "all the roads lead to rome". In fact, is the goal-focused nature of the whole policy what leads to this situation. As table 7.2. shows, the objectives in greenhouse gas reductions and energy consumption are similar. One way or the other, all of them go in the same direction.

Chapter 8. Conclusion: of institutions, ideas, politics, and time.

The two policies studied here are both aimed to tackle an urban environmental tragedy characterized by complex problems of multi-level and transversal nature, whose competences are distributed between different sectors and government levels. A snapshot of coordination processes taking place under these circumstances may suggest different explanations depending on the theoretical perspective. From a mere institutionalist perspective, the point is to develop institutional arrangements that distribute competences and develop and enforce incentives to align actor's behavior leading to joint work. The sociology of organized action would suggest the creation of interdependencies to foster the recognition of the mutual dependencies between all the actors. However, as the cases made evident, governance arrangements are rarely static as they are influenced by institutionalized interaction patterns and cognitive frameworks combined with political and institutional changes. Under such circumstances, to what extent institutional arrangements or the creation of interdependencies persist? How does changes affect the interactions, leading (or not) to coordination? Which institutionalized patterns remain? Why?

By moving from “snapshots to moving pictures” (Pierson, 2000b, p. 72), the thesis sought to answer these questions. The main implication of this assertion is that arrangements following specific institutionalized interaction patterns and cognitive frameworks that determine a particular coordination process and outcome, may fall apart once changes come, leading to different types of interactions. Such was the case in Mexico City (Chapter 4), when coordination characterized by command and control ended up with political changes at the city level in '97 and culminated with the end of the PRI regime. This triggered positive coordination between Mexico City, Estado de México, and the Federal Government, when the three actors adjusted policy instruments to avoid pollution crises due to its blame-generating features. Changes altered the governance arrangements once again in 2012 by taking out one of the mayor parties from the governing coalition (the National Action Party) which later promoted actions to destabilize the arrangements, leading to conflict. In the case of Paris (Chapter 5), political and incremental institutional changes led to two coordination sequences for the City-Region interactions. Initially, when the same coalition ruled both levels (Socialist-Greens), they shared a similar approach and even carried out joint initiatives, presenting common fronts vis-à-vis other territorial actors. Once the political conditions changed at the regional level, conflict characterized interactions between both actors, leading to policy incoherence and

regional fragmentations. Interactions with other *collectivités* and the State barely changed due to institutionalized patterns (see below).

In contrast, climate change policy coordination in both cities (chapters 6 and 7) was rather free of conflict due to limited interactions ever since the policy got into the local agenda. This conclusion was only made possible by its continuous examination through a longitudinal analysis of coordination processes. In both cases, institutional changes and political events reinforced the original state of the affairs. For instance, in Mexico City, climate change policy was a way to differentiate local and national policy. The gained local autonomy after the 1996 reforms was reflected in the different national and local approaches, creating a parallel development during which the city advanced the federal government in climate-related measures. Political disputes and further changes only widened the gap. By the time an institutional arrangement intending to coordinate collective action arrived, “it was just too late” to reconcile national and local policies which were affected by other factors – air quality problem legacies, advanced technical capacities, and different problem framings.

Conditions were not so different in Paris. As a climate policy “pioneer”, the city overran all the other *collectivités* inside Île de France. Being years ahead of the region, the *Métropole du Grand Paris* and the other municipalities and departments, the city was in an advantageous position, without any need to cooperate to achieve its greenhouse gas reduction targets. Political changes at the regional level only widened the gap with the city due to partisan differences. Additionally, the introduction of a new metropolitan scale resulted in some policy coordination in planning, mostly at the general objectives level. Just as in the case of Mexico City, elements such as the problem framing, capacity development and partisan politics reinforced the city’s isolated climate policy development (these elements are discussed in-depth below). Despite the cities’ isolation and the different focus from upper government levels – related to energetic transition and with GHG reduction as a positive externality rather than a goal itself –, in both cases the outcome of the rather limited interactions was negative coordination. This was due to the objective features of the problem that make energetic transition beneficial to carbon reductions.

To wrap up and order these assertions, and to present the main findings, this concluding chapter organizes as follows. First, it portrays the identified institutionalized patterns and cognitive frameworks guiding the interactions. Each one of them has specific characteristics, that however, act in conjunction with the other two. For example, the perception of the region as the rightful metropolis – a cognitive factor – was reinforced by the region’s mandates to

promote territorial cohesion and its coordinator role (*chef de file*) – both institutional elements. Such institutionalized patterns happen in parallel to institutional and political changes, acting both as either catalyzers or enhancers of strategic action. This means that some events can mitigate or intensify the abovementioned patterns, therefore define the extent to which actors converge or diverge, leading (or not) to coordination. By doing this, they steer interactions towards a different sequence.

The following section focuses on the effects of time in coordination. It analyzes four dimensions: timing, duration, pace, and legacies and inertias. Timing focuses on the concurrence of contextual events (political or institutional changes) with domain-specific developments created or reinforced a particular interaction path. The next one is about how the length of some processes or “action modes” lead to institutionalize a particular interaction pattern. Pace is split into two: 1) how the sense of urgency of some problems leads to cooperation and/or conflict – and how the opposite leads to non-interaction, and 2) the speed with which a problem got into the agenda creates disparities between the actors. Lastly, legacies or old policies affect the development of new ones by bringing elements that impact coordination (i.e., air quality legacies brought to climate change) and inertias, or the capability of a given policy to drag some features that persist through major institutional or political changes. The final sections address the limitations of the study and further research avenues.

8.1 Institutions and ideational frameworks locking up interactions

For both cases, the analysis revealed how institutionalized patterns and cognitive frameworks locked in interactions within each coordination sequence. For example, in the case of air quality policy in Mexico City (chapter 4), blame avoidance was a major driver for each of the three sequences, even leading the actors to coordinate policy instruments and avoid pollution outbreaks due to their blame-generating features (sequence 2). The Parisian case of air quality presented other type of process, more related to institutionalized scale differences, such as the regional mandate for territorial cohesion, and the mutual perceptions of each actor’s role in policymaking, depicted by the regional and metropolitan notions of their coordinator role; or even by the differences between the City of Paris and other metropolitan communes regarding driving restrictions. Institutionalized patterns and cognitive frameworks have different variants as shown in Tables 8.1 and 8.2. As it is further developed, the two are interrelated, either by acting in combination or as preconditions for each other. The following sections discusses in-depth the two elements.

Table 8.1 Determinants of coordination processes in air quality policy

Determinants of the coordination processes		Mexico City	Paris
	Cognitive frameworks	- <i>Référentiel</i> of central control - Reputational harms	<i>Référentiel</i> of central control
	Institutionalized practices	- Air quality policy as crisis control	- Institutional mandates - Scale differences
	Incremental changes	- Policy instruments - Organizational changes	- Change on competences <ul style="list-style-type: none"> ○ Transport ○ Driving restrictions - Pollution crisis protocols

Source: Own elaboration

Table 8.2 Determinants of coordination processes in climate change policy

Determinants of the coordination processes		Mexico City	Paris
	Cognitive frameworks	- <i>Référentiel</i> of central control - Mobility contradictions - Different problem framings	- <i>Référentiel</i> of central control - Problem's global outreach
	Institutionalized practices	- Historical distribution of competences	- Regional economic rationale of energetic transition
	Incremental changes	- Local capacity building - Political Struggles - Climate law	- Local capacity building - Political changes - Change on competences <ul style="list-style-type: none"> ○ Ambiguities ○ Planning - New metropolitan institution

Source: Own elaboration

8.1.1 Institutionally defined practices

These factors arise from the institutional framework itself to which the interactions are longtime anchored. They directly affect the position of the actors towards a specific issue due to the historical distribution of tasks, leading to institutionalized patterns because they reflect more than a mere allocation of attributions at some point in time. It is about the “taken for grantedness” of each actor’s formal role, and the way they have been using their competences, which is not necessarily apolitical. Better said, these kinds of institutionalized patterns are about how power is distributed over time, the way actors usually exert them to fulfill their interests, and how this creates a particular “way of doing things” anchored by their formal

competences. Their outcome are foreseeable expectations of what actors may do with their competences. Concretely, this pattern can be divided into three: functional fragmentations, institutional mandates, and scale differences.

8.1.1.1 Functional fragmentations

The first refers to the general system of attributions under which interactions have been historically defined. Here, it is possible to find competences on a specific, more general topic (public transport or energy production) or policy instrument (driving restrictions, setting pollution standards, planning). Such “historical fragmentations” were evident in the case of climate policy in Mexico City. As chapter 5 showed, the historical division between energy and transport led the city to discard energy-related measures even when it got competences after institutional changes. For the city’s officials this was a matter of the federal government. Conversely, the fact that the federation only focused on energy, refrained it from entering to develop any transport-related measures such as CO₂ emission regulations, which they have done for air pollutants. As the case has shown, these “historical fragmentations” are part of the sectorial paradigm leading to different problem approaches (as discussed below).

8.1.1.2 Institutional mandates

Institutional mandates also define attributions but have a wider scope, are of transversal nature and are usually, more abstract. These were mostly present in the Paris case and comprise, for example, the promotion of territorial cohesion, economic development, or ensuring metropolitan unity. As shown in chapter 4, the region used its institutional mandate of promoting territorial equality to justify its car-use support and arguing against driving restrictions. According to the region’s executive, driving restrictions are a regressive measure that hinders people’s capacity to travel to Paris for work, creating inequalities between them and Parisian citizens. Under this logic, as the scale in charge of promoting territorial cohesion, the region should seek an equilibrium between the city of Paris and its *petite couronne*. As it is mentioned below, this has more to do with the preferences of the right-wing regional executive towards road construction and car-use. Either way, the region used attributions related to the promotion of territorial cohesion and economic development to justify its actions. This was mostly evident in the cases of pollution peaks and in the riverbank roads affair. In the case of the latter, the regional authority argued that the closure of the Georges Pompidou roads had negative spillovers in the surrounding communes by creating more traffic jams and

spreading pollution out of the city. Once again, as the warrant of territorial equilibrium the region sustained a fierce opposition to the city's project.

This institutionalized element has been reinforced by subsequent institutional changes, such as the transfer of the transport authority and the position of "*chef de file*". By making use of the former, the region influenced air quality policy defining the transport fees during pollution peaks, giving few incentives for the use of public transport, and building more roads to end up with traffic jams (according to the regional executive, this was the go-through solution to car-originated air pollution). As seen below, this last aspect clashes with the city's view, creating conflicts over the policy means and ends. Conversely, the NOTRe law introduced a set of ambiguities, reinforcing some contradictions regarding territorial mandates. On the one hand, the term *chef de file* was a source of ambiguities that the region manages at its convenience to reinforce its role as preserver of territorial equality and as coordinator. "Using" such attribution, the region demanded its inclusion on the State-led decisional body to be consulted on driving restrictions during pollution peaks; it also used such position to demand the suppression of some measures – such as the pedestrianization of the seine riverbank roads, or to join the opposing communes in their claim to soften the restrictions related to the low emission zones.

On the other hand, the same legislation granted the *Métropole de Grand Paris* the competence to coordinate climate change and air quality policies, enhancing struggles between two scales that hold similar functions in the same territory. The result of this situation was twofold: a regional authority demanding other government levels to align to their policy approach, and a reluctant metropolis that found in the City of Paris a powerful ally to counteract the region's actions. In sum, concurrent government levels with similar mandates operating in a context of institutional ambiguities created conflict, affecting coordination.

8.1.1.3 *Scale differences*

The third institutionalized practice refers to scale differences linked to internal territorial needs. This was evident in the interaction dynamics between Paris and other government levels in air quality policy, where prevailing local needs caused conflict, leading to policy incoherence. For instance, while the city of Paris demands prompt driving restrictions during pollution peaks alleging harmful health effects for its inhabitants, some metropolitan communes and departments have adverse reactions due to the mobility hurdles for their citizens. In the Seine riverbank roads affair, the city's decision to pedestrianize the Georges Pompidou Road

responded to a local need, displacing pollution to other areas of the Parisian region, getting back complaints from metropolitan *communes*, departments, and the region. Probably the case that better illustrates the issue are the low emission zones, where the mixed responses from the city, the Greater Paris and the metropolitan communes have effects that hinder the effectiveness of the measure. If restrictions are implemented, citizens from the poorest communes might not be able to drive their older, polluting cars into Paris and other neighboring municipalities that adopt the measures. On the other hand, if opposing communes don't issue any restriction, it could have a negative effect in the overall metropolitan pollutant emission levels. Such deadlock hinders policy effectiveness while the territories keep internal political stability with their constituencies.

8.1.2 Cognitive frameworks

Cognitive frameworks affected the interactions at two levels, by defining the frames of reference, and the sector-specific ideas defining the policy goals, instruments, and the nature of the problem. Regarding the first level, the prevailing element was a *référentiel* of central control permeating into the city's policymaking. In the sectorial paradigms politics and problem framings molded the mutual perceptions. Both are discussed below.

8.1.2.1 *Référentiel of central control*

In both cases operated a global *référentiel* of central control. As country capitals, one of the main characteristics of both cities is the longtime central control over local affairs. Even if both have undergone through decentralization paths and increasingly gained more autonomy, legacies to keep central control over some policymaking aspects, persist. For the case of Paris, this was mostly evident in the enforcement of driving restrictions during pollution peaks (chapter 4). By defining if and whether to set driving restrictions, the State, through the Police Prefect, controls one policy stream. Despite changes in the crisis control protocols towards an apparently more inclusive decision-making process during pollution outbreaks, the State refuses to give up some ground in that area, which in turn is, alongside with monitoring, the key activity during pollution peaks. Similarly, due to the need to fulfill international commitments, the State's involvement was a main factor for the city's adoption of climate-related measures through steering instruments and technical assistance (chapter 6). In that sense, policy coordination was achieved through a centralist component.

The centralist legacy is also present in Mexico City. Whereas the city experienced a more autonomous policymaking after institutional and political changes combined with the fall of

the hegemonic party regime, the Federal Government still seeks to retain – or regain – control over some affairs. This was evident in the transformation of the Metropolitan Environmental Commission (Chapter 4), which despite being an intergovernmental body where all the members had equal voice and vote, the organization got captured by the federal government. By appointing personnel with central loyalties and managing the trust fund, the federal Secretary of Environment controlled information flows and the assignation of metropolitan projects inside the Commission. More importantly, due to the blame-generating features of the issue, it controlled the discourse to shake the blame off whenever pollution peaks break out again. Climate change policy presented a similar stand with the operation of the climate change fund. With the financial instrument in hands of the federal government, it designated the type of projects to be funded as well as the amounts, steering policy (or at least intending to) according to its own will.

8.1.2.2 Paradigms and framings

Sectorial-level cognitive aspects shape the way actors address their mutual dependencies by defining their perceptions on how the problem should be tackled, at which level, and what their role should be in policymaking. Within each paradigm, the convergence or divergence around these aspects impacts coordination. In the cases studied here, perceptions were defined by politics and the problem framings.

8.1.2.2.1 Politics in paradigms

Regarding the former, some domains have reputational implications affecting the way interactions unfold. As the Mexico City case demonstrated, blame avoidance dynamics dictated the general policy objective of preventing pollution peaks and the interactions taking place to achieve such goal. The conditions under which the policy got into the local agenda – political turmoil after the 1988 elections and rising political competition – labeled air quality as a sensitive issue to be handled with care. Ever since then, the aim has been to prevent pollution outbreaks and avoid its blame generating features. Initially, this aspect fostered coordination, first, through command and control – due to the hegemonic party regime conditions – and later, as the result of the distribution of competences on policy instruments. Even when pollution peaks arose, creating conflict, interactions were guided by blame avoidance strategies to avoid the reputational harms of such events. In a nutshell, what the Mexico City's air pollution case showed is that blame-risk aversion led actors to either cooperation or conflict, and institutional and political changes only oriented the institutionalized blame avoidance dynamics.

Another politics-related factor were the mobility contradictions between low-carbon transport and road construction in Mexico City (chapter 5). On the one hand, the local government fostered low carbon or sustainability-related practices. However, when it came to car-use – the main local source of air pollutants and greenhouse gases – the city holds a contradictory position, building more roads, and incentivizing the use of private transport. While navigating through this dichotomy, the local government goes from cooperation to conflict with the environmentalist community (NGOs). Moreover, this anchored contradiction alienated the position of the appointed secretaries of environment and mobility. Once fierce critics of the government's private transport policies due to its environmental hazards, the secretaries changed their position sticking to the main political project.

8.1.2.2.2 Problem framings

Framings can be split into two categories, one related to the problem definitions, and another denominated as territorial framing. The former refers to the way actors address the problem causes, assign possible solutions and set the means to achieve it. This type of framing initially fostered air quality policy coordination between the city of Paris and the Île de France Region and then acted as a constraint (chapter 5). When both levels shared similar framings for the air pollution problem as one related to car-use, their interaction led to coordination and even forged a common front towards the State during pollution peaks to demand stricter driving restrictions. Political changes altered this framing. The perception from the incoming, right-wing regional executive towards air pollution as a problem related to car efficiency and traffic jams contrasted abruptly with the city's conception. Therefore, with the region favoring private vehicles, conflicts towards driving restrictions and transport fees arose, creating policy incoherencies between both scales.

Similarly, the different framings between both cities and upper-level government scales on climate change affected interaction patterns. Mexico City, for instance, devotes its climate-related actions mostly to reduce carbon emissions from transport, while the Federal Government focuses mostly on energy. Part of this explanation is the distribution of competences, with the federal government having a more ample maneuver margin in energy than the city, and the same applies for local competences on transport (see above, section 8.1.1.1). However, the difference here strives on the means to address the climate problem. For the federal government, greenhouse gas reduction comes as a positive externality of energetic transition policies. Its focus is mostly on cost reduction achieved by energetic efficiency, which in turn has a positive effect on carbon emissions. In this line of thought, the city should change

its problem framing so both can work altogether in the issue to achieve significant cost-reductions (Interview 32). In turn, besides the fact that Mexico City identifies energy as a competence historically handled by the federation, its focus is mainly on reducing transport emissions with a more direct focus on climate change. Divergence of such framings created separate paths, with both actors developing policies in silos depending on their problem conception.

In the Parisian case, the city-region relationship is similar. For the regional council, climate change measures have been historically related to energy, privileging a conception of cost-reduction. This view has its roots on historical considerations dating from the region's origins as an administrative body, when it followed the State's rationale of energetic security in the early eighties. Since then, the notion of efficiency stucked in, and has reproduced over time, with varied climate emphasis depending on the region's political orientation. Greenhouse gas reduction is therefore a positive spillover of an energetic transition policy. The city of Paris has a more climate-targeted policy, with stricter GHG reduction targets and constantly emphasizing transport de-carbonization. For both cases, due to the GHG mitigating effects of energetic policies, the different framings fail to foster joint work without affecting policy coherence.

Territorial framings refer to how actors perceive what their role should be in solving a problem regarding their general position in the governance arrangement of a particular policy domain. According to Lindblom (1965), the extent to which actors coordinate depends on their mutual dependencies or the way their actions affect or get affected by others. Therefore, their propensity to coordinate, in this case, depends on (1) the extent to which actors consider themselves (or others) to be the most fitted to solve a public problem – or the “right scale (s)” – and (2) whether they need others to fulfill such perceived role, hence defining the scales to which they are connected to. In short, territorial framings define the collectiveness or individual character of a problem. As the cases have shown, these perceptions are seldom one-shot or oriented by party politics; rather, they result of a path dependent process, orienting the interactions.

As seen in chapter 3, the problem got into the local agenda through coordinative discourses, when the actors in the governance arrangement of air quality policy considered the cities to be the “right scale” by making air pollution an urban problem. In Mexico City, this perception came after a process of political entrepreneurship by the local government together with the federal government's need to appease social claims. For the case of Paris, the coupling of national and local agendas came through narratives coming from the region's involvement,

local political changes and finally the institutional change at the State-level, recognizing air pollution as an urban problem. Such processes locked-in the perception of air quality as an urban matter, defining all the actor's roles.

Another institutionalized perception affecting the interactions in the Parisian case are the “struggles” for the metropolis between the region, the city and the recently created *Métropole du Grand Paris*. Ever since the installation of the regional council in the eighties, the region identified itself as the metropolitan scale. Such notion got constantly reinforced by its institutional mandates – or missions – of promoting territorial cohesion and economic development, and later by the competences related to its coordinator role (*chef de file*). Consequently, the region's self-proclamation as the “rightful” metropolis is indistinct of the partisan majority in the regional council. Therefore, no matter its political orientation, the region's executive has always opposed to the formalization of a metropolitan government. As shown in chapter 4, socialist Huchon qualified the project of *Grand Paris* as a “monster”. Once the metropolis created, Huchon's right-wing successor, Valérie Pécresse constantly disdains its actions, claiming its uselessness and looks to take over its role. This conception clashed with the city's, which for longtime urged the creation of a metropolitan scale. When looking at the interactions, this situation creates common front between the right-wing metropolitan council and the City of Paris, leading to positive coordination between both; unsurprisingly, interactions between the metropolis and the region lead to ruptures, and achieve, at best, negative coordination.

Finally, the climate change policy coordination analysis developed in chapters 6 and 7 demonstrated that policy capacities and the problem's global links affected mutual dependencies between the cities and other government levels. Being more technically advanced than other scales refrained Mexico City and Paris governments to coordinate with other government levels and carry out joint policies (with exception of territorial planning between the City of Paris and the metropolitan council). Whereas this situation didn't affect policy coherence, their frontrunner status puts them in a position where they don't need others to reach their goals. Additionally, the fact that, while reaching their objectives they contribute to alleviate a global condition, connects the cities with the international community rather than with domestic actors. In that sense, climate change policies didn't reach positive coordination because in the cities' realm, their actions neither affect nor get affected, positively or negatively, by others.

Institutionalized patterns and cognitive frameworks are neither mutually exclusive nor they occur in isolation. Their timing varies: while some of them may be concurrent, others may precede or reinforce others. Such was the case of institutional mandates leading to a conception of the Region as the rightful metropolis where other institutional elements such as the ambiguities created by the term *chef de file* reinforced such notion. Another example is the combination between scale differences and territorial framings, where the former affects the consideration of mutual dependencies due to local conditions. In short, the abovementioned institutionalized pattern types shall be considered in a more dynamic and interactive fashion, sometimes as preconditions, sometimes as reinforcers of each other.

8.1.3 Too deterministic? Institutional and political changes as catalyzers or enhancers of institutionalized patterns and cognitive frameworks (or what happens affects how it happens)

Do the abovementioned features determine whether positive, negative or no coordination should be expected? Not necessarily. While some of those factors may (or may not) lead the actors to carry out joint actions, there are some break-ups or ruptures, that appear either incrementally or as external shocks that have the possibility to transform the relationships. Indeed, one of the main hypotheses in this research is that some events, in the form of institutional and political changes, have the potential to reorient the interactions and lead to a different coordination sequence. To what extent can these events modify the interactions? Are ruptures strong enough to completely change the way interactions unfold? At first sight, it seems that some events bring out alterations capable to redirect the interactions, leading to different coordination modes and even going from cooperation to conflict. In chapter 4, constitutional changes leading to political rearrangements represented the transition from command-and-control to blame-avoidance-motivated coordination in Mexico City. Political changes brought by the 2012 elections once again oriented interactions, leading to coordination breakups. Similarly, in the Parisian air quality case (chapter 5), political changes at the regional level represented a different problem approach, redefining the city-region relationships.

The same applied in climate change policy coordination. Negligible interactions between Mexico City and the federal government were only reoriented by institutional changes after the 2012 federal law. Far from breaking up the institutionalized interaction patterns, the reforms reaffirmed the disconnection between both government levels. Not even political events led to

any type of coordination. Albeit party changes at the federal level, negative coordination persisted, with interactions limited to some funding opportunities. For the Parisian case, there was no mayor event able to reorient interactions. Neither party politics nor institutional changes fostered coordination between the government levels. City-metropolis interactions showed some vestiges of explicit coordination on planning. However, it was mostly limited to express favorable opinions on the plan's coherence. As addressed below, other time dimensions explain better the (lack of) interactions in climate change policy and its effects on coordination.

At least in three out of the four empirical chapters, changes led to another interaction sequence. In reality, these changes rather than deeply transform the interactions, reorient a path that keeps going under institutionalized forms of interaction and cognitive frameworks. That is, what changes really do is to either enhance or catalyze coordination or conflict in face of the already institutionalized patterns. So was the case in air quality policy in Mexico City, where underlying blame avoidance dynamics reigned over the interactions. Changes in the institutional context only reoriented the actors' strategies leading to different coordination modes or even to break-ups. In Paris, the political orientation acts only as a political regulator in a scenario plenty with "irreconcilable differences" between the city, the region, the metropolitan authority and other surrounding municipalities and departments. In other words, party politics could make them converge over some policy means and ends by defining certain preferences, but other political, scale differences and cognitive features will prevail, i.e., poor communes would hardly accept driving restrictions, the region will always have an unfavorable view over the metropolitan scale, and the State will seek to retain control over certain issues in the Parisian region.

Climate change policy coordination processes rendered different conclusions (chapters 6 and 7). While in Mexico City it was possible to distinguish two sequences, the changes didn't bring out considerable differences between them and interactions are kept to a minimum due to institutionalized patterns. What changes did was just to reorient already marginal interactions to a minimum of compliance with institutional requirements. Besides negligible contacts related to funding, there was no other type of interaction regarding other matters. In Paris the scenario was even more extreme. Only one sequence was identified, mostly guided by the city's notion of isolated development by overrunning the other actors inside the Parisian region. Elements such as capacity building and the problem's global outreach reinforced this notion. Contrary to the air quality case, partisan differences – notably with the region – did not alter, for better or worse, the state of the affairs. Where then lies the difference between the two

policies? Besides institutionalized patterns, there is another common denominator attributable to these differences: time. The following section addresses the issue.

8.2 It's also a matter of time

The longitudinal analysis of coordination processes in two policy domains unveiled the role of temporal dynamics. This research showed that the time variable shall be reconsidered when looking at policy coordination, not only due to the contextual factors affecting the way interactions unfold, defining the different periods, but also on how the past affects the present. This section will discuss time in four variants: timing, duration, pace, and the past. The influence of each one of them varies between domains.

8.2.1 *When* tells us *why* (a.k.a. timing matters)

One of the lessons learned through the cases was how the concurrence of some events in the wider institutional context with policy developments locked-in some of the abovementioned interaction dynamics. That is, the parallel occurrence of contextual events (political or institutional changes) with domain-specific processes created or reinforced a particular interaction path. This aspect was mostly observed in the Mexican case. For instance, the insertion of the air pollution problem took place in a time of political turmoil, making the regime to be more attentive to social demands to preserve its legitimacy. Not only did the context helped the problem to get into the local agenda but also made it a sensitive issue, to be handled with care due to its blame-generating features. As chapter 4 has shown, the risk of being blamed guides policy coordination in air quality policy in Mexico City.

Timing also affected climate change policy coordination by reinforcing an original disconnection. Political struggles between the city's mayors (López Obrador and Ebrard) and Presidents Fox and Calderón prevented any type of coordination in many policy domains. Being a new policy during López Obrador's term (2000-2006), climate change "born" without any interaction with the federal government. Later, under Marcelo Ebrard's government (2006-2012), political disagreements persisted, reinforcing this feature. Chapter 6 showed that during that time, the city outscored the federal government in climate policy, leading to an isolated development and generating policy capacities, without any need to cooperate with others to meet its policy objectives.

In the Parisian cases timing effects were more dispersed, although still present. Air quality policy coordination leading to local and national agenda coupling was partly determined by the European discussions on air pollution regulations and the State's intentions to issue the '96 air

quality law (LAURE). Those conditions coincided with the green-socialist presence in the Paris Council and a young Region's intention to study the health consequences of air pollution as a move to gain visibility. Regarding climate policy, the State's need to improve its international indicators of GHG reductions motivated the involvement of subnational governments. Once again, the green party presence in the *Hôtel de Ville* fostered the city's pioneering adoption of the first voluntary climate measures, thus acting along with the State through its steering instruments (Chapter 7).

8.2.2 Duration (for how long?)

The length of some processes may also influence the unfolding of the interactions. This was the case in climate change policy, where both cities experienced a long-lasting disconnection with other government levels, making difficult to “go back” to develop joint actions. Since the political changes of '97 and up to 2011 – when the federal government issued the climate law – Mexico City and the federal government had practically no interactions. This longtime disconnection has been difficult to reverse due to aspects such as capacity development and institutional flaws. Additionally, the appeal to tradition related to the historical competences in energy and transport leads the actors to work in silos. This sort of fallacy refrained the city to foster energy related GHG reduction measures, leaving that domain to the federal government. Paris experienced a similar situation. Ever since climate change got into the local agenda, the city has mostly worked with State's agencies, leaving outside other government levels. Paris' pioneering position in climate policy placed it alone for many years, developing its own plans and policies, leading to a persistent isolation that would hardly reverse, *caeteris paribus*.

8.2.3 Pace (of urgency and speed)

Air quality and climate policies aim to tackle problems with different paces (or two different crises, according to Anthony Downs, see introduction, page 47). Whereas air pollution denotes a sense of urgency due to its immediate and visible effects, consequences from slow onset problems such as climate change are not (yet) as noticeable. This diverging feature affects the type of interventions and the interactions between the involved actors. Such differences were evident in the agenda-setting as well as the implementation dynamics. For instance, air quality got into the local agenda after crisis episodes increased the issue saliency, raising concerns of the civil society and the opposition parties (in the case of Paris). Despite being locally absent for many years, once the cities adopted the issue, actions began right away.

In contrast, the process for a concrete climate policy took much longer. In fact, climate change was not recognized as a problem on its own. It transited from being part of a wider sustainability discourse and then it became a separate domain, leading to stepwise actions in both cities before the policy got fully institutionalized. The fact that there were no visible effects (besides the heat waves in France) gave the cities enough time to develop incremental measures, turning the problem into their political flagship while overrunning other government levels. This ratio of climate policy adoption vis-à-vis other government levels put the city in a frontrunning position, with little or no need to coordinate with them to reach their objectives.

During the implementation, for both cases, air quality got more extreme reactions than climate change policy. Depending on the analyzed sequence, interactions in air quality were either towards cooperation or conflict, with barely any shades of gray in between. The crisis-status of the problem with immediate effects and the implementation of unpopular measures to fight it (driving restrictions), polarized the actors' positions. In Mexico City, the blame-generating features of pollution outbreaks motivated actors first to coordinate policy instruments for avoiding their reoccurrence, and then led to conflict when crises came back. Albeit different motivations, the same contrast applies to the Parisian case. When the city and the region converged politically, they shared the same view towards driving restrictions, demanding immediate action to end up with pollution outbreaks. Conflict arrived when political conditions changed and opposing views between both governments confronted them. The situation with the metropolis and other municipalities and departments is similar, they either support or reject the measures.

Climate change could be categorized as a low conflict-low coordination policy, or more within the shades of gray rather than a dichotomy. As mentioned above, the early adoption of GHG reduction measures placed the cities as frontrunners in their contexts, advancing other government levels hence taking away the necessity to coordinate to reach their objectives. Conversely, without any visible climate-related problems, other governments (apart from the State in the case of Paris) have few incentives to coordinate with the cities. In consequence, Mexico City limits to information exchanges and compliance with institutional formalities which have been implemented long before they were mandatory; and Paris achieves coherence with the national, regional, and metropolitan plans, an easy task for an entity that is more advanced and has more ambitious GHG reduction objectives than most of its counterparts.

8.2.4 Of inertias and legacies (or dragging the past)

The last time-related implication for coordination is about how some elements are “dragged” or carried from the past. This assumption is twofold. In the first place, policy legacies or old policies affect new ones, carrying out some elements that orient the interactions. As mentioned in the introduction, air quality and climate change are related, although different policy domains. This means that despite they share some common sources, the problem they try to tackle is different and sometimes, while implementing policies to address one of them, it is possible to have negative implications or spillover effects on the other. Such similarities imply that the expertise in, for example, gathering data for emission inventories, planning, or setting emission regulations can be transferred or adapted from an “older” air quality policy to newer climate measures. The latter was the case in Mexico City. Two decades of expertise on data compilation and planning nurtured the city’s self-sufficiency argument, hindering coordination – and interactions in general – with the federal government on those grounds.

Air quality was also present by fostering or hindering the adoption of climate-related measures. In the Mexican case, the implementation of the Bus Rapid Transit System was initially conceived to alleviate the air pollution problem and only later it got a low-carbon measure tag, dedicated to reducing GHG emissions. Contrastingly, in Paris the notion of air pollution delayed the adoption of climate policy by confusing the latter with global pollution instead of pointing out its global warming effects.

In second place, “dragging the past” has coordination implications when policies that transit through political or institutional changes are compared against “newer policies”. This is what I denominate as policy inertia (chapters 4 and 5), or the capability of a given policy to drag some features that persist through major institutional or political changes. Older policies would normally experience more of these changes; therefore, the more institutionalized features can be dragged through time, defining the actors involved and the type of interactions. Conversely, policies that appear once major changes have taken place would not have many elements to drag. At most they can “borrow” some features from other policies. Air quality, for example, had some inertias that went through the institutional and political changes that defined each interaction sequence. Climate change represents the second case because it appeared once major political and institutional changes took place in both contexts.

In Mexico City the fact that air quality policy interactions took place before the ’96 reforms and the ’97 and 2000 political changes fostered the transit of blame avoidance motivations

through all the periods (T₁-T₃). Similarly, the presence of multiple actors in Paris ever since the local air quality agenda setting process took place, led to different interactions where those actors were still present. As mentioned above, this caused either cooperation or conflict; either way, actors held continuous interactions. In contrast, climate change entered the local agenda once the cities were more autonomous on policymaking. That is, major changes already occurred and there was no policy inertia once the climate problem was locally adopted. Without anything to “drag”, interactions were originally disconnected and got reinforced by later developments.

8.3 Limitations

This thesis has three principal limitations. First, the level of analysis poses a shortcoming for the study of individual actors. The study focused in a meso-level by analyzing interaction dynamics between government levels, without getting into detail on the role of individuals. However, the cases acknowledge the relevance of individual actions in policy coordination. Chapter four highlighted the role of Mexico’s city mayor fostering coordination processes by reaching the president and taking over the lead in the environmental commission. In the case of Paris, Mayor Delanoë fostered the creation of a metropolitan institution to coordinate policies inside the perimeter of the Greater Paris.

Research from different disciplines has since some time ago been concerned with the role of individuals in shaping institutions, politics and policy change in different contexts (Fligstein, 2001; Kingdon, 2014; Kwamena Onoma, 2010; Schneider & Teske, 1992). These actors are widely denominated as entrepreneurs, who mobilize resources to transform politics, policies or institutions (A. D. Sheingate, 2003, p. 185). Scholars from diverse disciplines have, for instance, shown an increasing interest in the interplay between institutions and agency. One of the main general conclusions is that institutions shape interactions as much as actors can shape, create, or modify structures. Sociological institutionalism, according to Garud, Hardy and Maguire (2007), seeks to provide answers to this sort of paradox: how can actors embedded in a framework that structures their interactions be able to envision new practices that change such a framework? One of the proposed answers relies in the temporal-relational context of action. That is, structures not only provide limits for action but also provide opportunities for knowledgeable and relational actors to transform them in response to changing temporalities and contexts (Garud et al., 2007).

For historical institutionalists the main issue of entrepreneurship is about power struggles and their effects on institutional transformations. Changes arise from actors with transformational motives – i.e. losers that benefit from such change – but also as a by-product of distributional struggles (Mahoney & Thelen, 2010). According to Mahoney and Thelen (2010), these entrepreneurs or change agents could seek to either preserve or abide institutional rules. Their courses of action therefore depend on their chosen target, leading to a specific type of institutional change (layering, drift, displacement, or conversion). This discussion is also present in policy studies literature. Kingdon's seminal work on agenda-setting (2014) recognizes the presence of a policy entrepreneur, an actor savvy enough to seize windows of opportunity and put together the problem, politics and policy streams fostering policy change.

Acknowledging these figures makes the case for a more in-depth analysis of the role of entrepreneurs in any of its variants – political, institutional or policy – in policy coordination. Under which conditions does these figures arise? Which are their motivations to foster (or not) policy coordination? Which opportunities are given by the structure to foster any type of change? In which parts of the process do they locate the most? Does their position in government matters – i.e. mid-high level officers versus street-level bureaucrats (see Arnold, 2020)? Understanding these and other questions would help to advance theorization of the role of individuals in policy coordination.

The two other limitations relate to the policy domains. For instance, the dissertation left aside the study of coherence between policies. The criteria to select air quality and climate change responded to their “cityness” as well as some control features to structure the comparison (see the introduction and Chapter 2). However, the same similarities and even relatedness of both policies may well lead to analyze their coherence, such as Philipp Trein's study of coupling and coevolution of healthcare and public health sectors (Trein, 2017a, 2017b). There are some grounds for doing so, especially in the Paris case. A few years ago, national climate policies seeking to reduce emissions had negative spillovers on air quality. The State promoted diesel vehicles as a low-carbon alternative without considering the pollutant and health-threatening effects of their particulate matter emissions, which are higher than those of gasoline-powered engines. After realizing that, the State recanted and is trying to move away from diesel engines. While diesel engines may have led to consequences in the poor air quality in the Parisian region, the lack of accurate data to isolate the effects of such policy in the general air pollution landscape would diminish the explicate power of the assumptions regarding policy coherence.

This would be more a matter of the abovementioned analysis of policy coupling, which is outside the reach of this dissertation.

Finally, the third limitation is regarding the generalizations for other policy domains. For the purposes of this research, it was important to select cases where all the actors have attributions and therefore analyze their interactions to see whether they lead to coordination. There are, however, other domains where either the city, the national government, or the region (in the case of France) have preeminence over other domains. In that case, it would be relevant to explore the explicative power of this framework in other policy areas.

8.4 Further research avenues

To conclude with this thesis, I propose further research avenues drawn from the main findings:

1. Policy capacities *for* coordination VS policy capacities *affecting* coordination. Policy capacities are commonly defined as abilities to perform policy functions and a necessary condition for policy success (OECD, 2006; Wu, Ramesh, & Howlett, 2015). Coordination as a skill is the ability of governments to foster the links between various actors to reach their goals. Parsons name it as the capacity to map and wave: “In order to steer government needs maps, and in order to weave government must have a capacity to ensure that the warp and woof of policy-making has a coherence — that the fabric of policy-making is ‘wired-up’ and is ‘holistic’ and ‘networked’ and ‘integrated’” (Parsons, 2004, p. 45). The capacity of governments to map and weave coexists with other analytical, operational, and political abilities (Howlett & Ramesh, 2014, 2016; Wu et al., 2015) that may not necessary be compatible between each other. The analysis on climate change policy coordination pointed to that direction. As mentioned earlier, the premature adoption of climate policies put both cities in a more advantageous technical position than its territorial counterparts, discouraging mutual dependencies and hindering positive coordination. Whether this assumption holds in other policies and contexts requires further developments. More generally, the compatibility or coherence between policy capacities is another research avenue.
2. Wickedness and conflict. Climate change is regarded as a wicked problem *par excellence*. According to the specialized literature (Alford & Head, 2017; Head, 2019; Rittel & Webber, 1973) these issues are prone to conflict between all the involved actors whose divergent interests create disagreements over the problem definition and solution. However, when compared to air quality, climate policy evidenced fewer

conflicting interactions. General GHG reduction targets and measures leading to its fulfillment didn't affect each other. One of the main critiques made by the interviewed actors in this regard was that the focus on general objectives, instead of the process, hindered positive coordination. Well, it seems that this was also a factor explaining the (almost) absence of conflict. Considering these findings, it could be interesting to revise the widely accepted assumption on the relationship between conflict and wickedness, or at least to explore more systematically the type of actors (public and private) among which disagreements arise.

3. Coordination for what purpose? The pursuit of policy coordination is often highlighted as a necessary condition to improve governmental interventions or even as a “holy grail” leading to policy success (Peters, 2015a). However, the path to achieving a goal through coordinated actions is determined by a specific construction of success indicators. In Mexico City, blame avoidance was a political motivation to set a specific conception of policy success: the actors aligned their actions to meet a goal to evade reputational harms (pollution peaks control), without necessarily improving the conditions for the general population (related to long-term pollution exposure). The construction of policy success and its collective achievement might imply underlying interests or hidden agendas (McConnell, 2018) that do not necessarily align with any improvement of the general well-being. Whereas the tradeoffs in climate policy were not as worrisome (yet), the lack of coordination did not lead to negative spillovers. Positive coordination would have been desirable? For sure. However, the lack of it seemed not to affect the targets and the roadmap for its completion. In sum, the focus on the motives of coordination and whether policy is significantly improved with it must be more systematically assessed with a non-functionalistic lens.

References

- 6, P. (2004). Joined-Up Government in the Western World in Comparative Perspective: A Preliminary Literature Review and Exploration. *Journal of Public Administration Research and Theory*, 14(1), 103–138. <https://doi.org/10.1093/jopart/muhO06>
- Agranoff, R. (2011). Federalist No . 44 : What Is the Role of Intergovernmental Relations in Federalism? *Public Administration Review*, 71(Suplement to Volume 71: The Federalist Papers Revised for Twenty-First-Century Reality), S68–S77.
- Agranoff, R., & McGuire, M. (2001). American Federalism and the Search for Models of Management. *Public Administration Review*, 61(6), 671–681. <https://doi.org/10.1111/0033-3352.00138>
- Aguilar, L. F. (1996). El federalismo mexicano : funcionamiento y tareas pendientes. *Revista Mexicana de Sociología*, 58(3), 3–37.
- AIRPARIF (2014, October 30). La pollution de l’air reste un sujet de préoccupation majeure pour les franciliens. Communiqué de presse. Paris
- AIRPARIF. (2010). Les différents polluants et leur évolution. Retrieved August 9, 2019, from <https://www.airparif.asso.fr/pollution/differents-polluants>
- AIRPARIF. (2017). Suivi de l’évolution de la qualité de l’air après fermeture des voies sur berges rive droite. Paris.
- Alfie C., M. (2013). Supervía Poniente: conflicto social y visión urbano-ambiental. *Estudios Demográficos y Urbanos*, 28(3), 735–768.
- Alford, J., & Head, B. W. (2017). Wicked and less wicked problems : a typology and a contingency framework. *Policy and Society*, 36(3), 397–413. <https://doi.org/10.1080/14494035.2017.1361634>
- Allison, G. T. (1969). Conceptual Models and the Cuban Missile Crisis. *The American Political Science Review*, 63(3), 689–718.
- Ang, G., & Marchal, V. (2013). Mobilising Private Investment in Sustainable Transport: The Case of Land-Based Passenger Transport Infrastructure (No. 56). Paris.
- Angot, S., & Gabillet, P. (2015). Pour une sociologie de la gouvernance politico-administrative interne des questions d’énergie-climat. In M.-C. Zélem & C. Beslay (Eds.), *Sociologie de l’énergie. Gouvernance et pratiques sociales* (pp. 117–124). Paris: CNRS Éditions.

- Aparicio, J. (2009). Análisis estadístico de la elección presidencial de 2006. *Política y Gobierno*, Volumen Te, 225–243.
- APUR. (2012). *Zone d’Action pour la Protection de l’Air à Paris. Etat des travaux à juillet 2012*. Paris.
- APUR. (2014). *La qualité de l’air dans la métropole francilienne*. Paris.
- Aridjis, H., & Ferber, B. (2019). Afterword. In S. Slovic, S. Rangarajan, & V. Sarveswaran (Eds.), *Routledge Handbook of Ecocriticism and Environmental Communication* (pp. 391–401). London & N.Y.: Routledge.
- Arnold, G. (2020). Distinguishing the street-level policy entrepreneur. *Public Administration*, (October), 1–15. <https://doi.org/10.1111/padm.12703>
- Bache, I., Bartle, I., Flinders, M., & Marsden, G. (2015). Blame Games and Climate Change: Accountability, Multi-Level Governance and Carbon Management. *British Journal of Politics and International Relations*, 17(1), 64–88. <https://doi.org/10.1111/1467-856X.12040>
- Bäckstrand, K., & Elgström, O. (2013). The EU’s role in climate change negotiations: From leader to “leadiator.” *Journal of European Public Policy*, 20(10), 1369–1386. <https://doi.org/10.1080/13501763.2013.781781>
- Baklanov, A., Molina, L. T., & Gauss, M. (2016). Megacities, air quality and climate. *Atmospheric Environment*, 126, 235–249. <https://doi.org/10.1016/j.atmosenv.2015.11.059>
- Baranda, B. (2015). Una década después. In Andamio, M. Ballesteros, & M. García Holley (Eds.), *Metrobús Décimo Aniversario* (pp. 159–160). Mexico: Andamio.
- Bardach, E. (1977). *The Implementation Game: What Happens After a Bill Becomes a Law*. Cambridge: MIT Press.
- Béal, V., Epstein, R., & Pinson, G. (2015). La circulation croisée. Modèles, labels et bonnes pratiques dans les rapports centre-périphérie. *Gouvernement et Action Publique*, 4(3), 103–127.
- Beltrán, U., & Portilla, S. (2010). El proyecto de descentralización del gobierno mexicano (1983-1984). In M. del C. Pardo (Ed.), *Administración pública mexicana del siglo XX* (pp. 153–181). México: Escuela de Administración Pública del D.F.

- Bergé, G. (2019). Les Associations agréées de surveillance de la qualité de l'air (AASQA) au service des collectivités pour la reconquête de la qualité de l'air. *Annales Des Mines - Responsabilité et Environnement*, 96(4), 59–63. <https://doi.org/10.3917/re1.096.0059>
- Bergeron, H. (2018). *Entrepreneuriat institutionnel et structures sociales*. Institut d'études politiques de Paris.
- Bertrand, F., & Richard, E. (2014). L'action des collectivités territoriales face au " problème climat " en France: une caractérisation par les politiques environnementales 1. *Natures Sciences Societes*, 22(3), 195–203. <https://doi.org/10.1051/nss/2014036>
- Bezes, P., & Le Lidec, P. (2016). Politiques de l'organisation. Les nouvelles divisions du travail étatique. *Revue Française de Science Politique*, 66(3), 407–433.
- Birkland, T. A. (1998). *Focusing Events , Mobilization , and Agenda Setting* Author (s): Thomas A . Birkland Published by : Cambridge University Press Stable URL : <http://www.jstor.org/stable/4007601> Accessed : 21-04-2016 23 : 45 UTC *Focusing Events , Mobilization , and Agenda*. *Journal of Public Policy*, 18(1), 53–74.
- Bodansky, D. (1994). Prologue to the Climate Change Convention. In I. M. Mintzer & J. A. Leonard (Eds.), *Negotiating Climate Change: The Inside Story of the Rio Convention* (pp. 45–76). New York: Cambridge University Press.
- Borraz, O., & Le Galès, P. (2010). Urban Governance in Europe: The Government of What? *Pôle Sud*, 32(1), 137–151.
- Bouckaert, G., Peters, B. G., & Verhoest, K. (2010). *The Coordination of Public Sector Organizations. Shifting Patterns of Public Management* (1st ed.). <https://doi.org/10.1057/9780230275256>
- Boutaric, F. (1997). Emergence d' un enjeu politique à Paris : la pollution atmosphérique due à la circulation automobile. *Pôle Sud*, (6).
- Boutaric, F., & Lascoumes, P. (2008). L'épidémiologie environnementale entre science et politique. Les enjeux de la pollution atmosphérique en France. *Sciences Sociales et Sante*, 26(4), 5–38. <https://doi.org/10.1684/sss.2008.0401>
- Boutaric, F., & Lascoumes, P. (2010). Quand la santé publique redéfinit les enjeux de la pollution atmosphérique en France. In N. Vernazza-Licht, M.-É. Gruénais, & D. Bley (Eds.), *Sociétés, environnements, santé* (pp. 127–145). Marseille: IRD Editions.

- Boutaud, A. (2009). *Les agendas 21 locaux. Bilan et perspectives en Europe et en France*. Lyon.
- Bouzzine, É., Fleureau, C., Hissar, H., Madelin, B., Maire, O., Mas, J.-C., ... Terrenoire, M.-O. (2007). *Politique de la ville et développement durable : des interactions à construire*. Saint-Denis.
- Bovens, M., & 't Hart, P. (2016). Revisiting the study of policy failures. *Journal of European Public Policy*, 23(5), 653–666. <https://doi.org/10.1080/13501763.2015.1127273>
- Bulkeley, H. (2019). *Managing Environmental and Energy Transitions in Cities: State of the Art & Emerging Perspectives*. In Background paper for an OECD/EC Workshop on 7 June 2019 within the workshop series “Managing environmental and energy transitions for regions and cities.” Paris.
- Bulkeley, H., & Betsill, M. M. (2003). *Cities and Climate Change. Urban sustainability and global environmental governance*. London & N.Y.: Routledge.
- Burstein, P. (1991). Policy Domains : Organization , Culture , and Policy Outcomes. *Annual Review of Sociology*, 17, 327–350.
- Cabrero, E. (2010). Gobierno y política local en México : luces y sombras de las reformas descentralizadoras. *Política y Sociedad*, 47(3), 165–186.
- Cabrero, E., & Zabaleta, D. (2009). Cómo contruir una Mística Intergubernamental en la Política Social. *Revista Del CLAD Reforma y Democracia*, (43), 27–62.
- Candel, J. J. L. (2017). Holy Grail or inflated expectations? The success and failure of integrated policy strategies. *Policy Studies*, 38(6), 519–552. <https://doi.org/10.1080/01442872.2017.1337090>
- Candel, J. J. L., & Biesbroek, R. (2016). Toward a processual understanding of policy integration. *Policy Sciences*, 49(3). <https://doi.org/10.1007/s11077-016-9248-y>
- Capano, G., & Howlett, M. (2020). The Knowns and Unknowns of Policy Instrument Analysis: Policy Tools and the Current Research Agenda on Policy Mixes. *SAGE Open*, 10(1). <https://doi.org/10.1177/2158244019900568>
- Careja, R. (2011). Paths to Policy Coherence to Create Market Economies in Central and Eastern Europe. *International Political Science Review*, 32(3), 345–366. <https://doi.org/10.1177/0192512110388316>

- Carpizo, J. (1978). Notas sobre el presidencialismo mexicano. *Revista de Estudios Políticos*, 3, 19–36.
- Carpizo, J. (2002). *El Presidencialismo Mexicano*. México: Siglo XXI.
- Casar, M. A. (1996). Las bases político-institucionales del poder presidencial en México. *Política y Gobierno*, 3(1), 61–92.
- Castán Broto, V. (2017). Urban Governance and the Politics of Climate change. *World Development*, 93, 1–15. <https://doi.org/10.1016/j.worlddev.2016.12.031>
- Catalán-Vázquez, M., Riojas-Rodríguez, H., Jarillo-Soto, E. C., & Delgadillo-Gutiérrez, H. J. (2009). Percepción de riesgo a la salud por contaminación del aire en adolescentes de la Ciudad de México. *Salud Publica de Mexico*, 51(2), 148–156. <https://doi.org/10.1590/s0036-36342009000200011>
- Cejudo, G. M., & Michel, C. L. (2016). Coherencia y políticas públicas: Metas, instrumentos y poblaciones objetivo. *Gestion y Politica Publica*, 25(1), 3–31.
- Cejudo, G. M., & Michel, C. L. (2017). Addressing fragmented government action: coordination, coherence, and integration. *Policy Sciences*, 50(4), 1–23. <https://doi.org/10.1007/s11077-017-9281-5>
- CEMDA. (2017). Marco jurídico de las energías renovables en México. Retrieved from https://www.cemda.org.mx/wp-content/uploads/2016/06/Marco-jurídico-de-las-energías-renovables-en-México.final_.pdf
- Centro Mario Molina (2012). *Evaluación del Programa de Acción Climática de la Ciudad de México 2008-2012*. México City: Centro Mario Molina.
- Charles, L. (2003). Pollution atmosphérique en région Ile-de-France : une problématique en transition. *Pollution Atmosphérique*, 177, 57–70.
- Charvolin, F. (2003). L'invention de l'environnement en France. Retrieved from <https://www-cairn-info-s.acces-distant.sciences-po.fr/l-invention-de-l-environnement-en-france--2707140465.htm>
- Chauvel, J. (2017). La réforme du statut de Paris de 2017 : Entre banalisation et confirmation de sa singularité. *Revue Française d'administration Publique*, 162(2), 295–306.

- Citi, M., & Rhodes, M. (2007). New Modes of Governance in the EU: Common Objectives versus National Preferences. *European Governance Papers*, 7(1), 1–29. <https://doi.org/10.1080/13501760903087696>
- Cobb, R. W., & Coughlin, J. F. (1998). Are Elderly Drivers a Road Hazard?: Problem Definition and Political Impact. *Journal of Aging Studies*, 12(4), 411–427.
- Commission for Environmental Cooperation. (2001). Mexico and Emerging Carbon Markets. Investment Opportunities for Small and Medium-size Companies and the Global Climate Agenda. Montréal: Commission for Environmental COoperation.
- CONAPO. (2018). Delimitación de las zonas metropolitanas de México 2015. Mexico City: SEGOB, SEDATU, CONAPO & INEGI.
- Cook, B. J. (2002). The Politics of Market-Based Environmental Regulation: Continuity and Change in Air Pollution Control Policy Conflict. *Social Science Quarterly*, 83(1), 156–166.
- Cour des comptes. (2015). Les politiques publiques de lutte contre la pollution de l’air. Paris.
- Crenson, M. A. (1971). The un-politics of air pollution: a study of non-decisionmaking in the cities. Baltimore: Johns Hopkins Press.
- Crouch, C., & Keune, M. (2005). Changing Dominant Practice: Making use of Institutional Diversity in Hungary and the United Kingdom. In W. Streeck & K. Thelen (Eds.), *Beyond Continuity. Institutional Change in Advanced Political Economies* (pp. 83–102). New York: Oxford University Press.
- Crouch, C., & Le Galès, P. (2012). Cities as national champions? *Journal of European Public Policy*, 19(3), 405–419. <https://doi.org/10.1080/13501763.2011.640795>
- Crowley, K., & Head, B. W. (2017). The enduring challenge of ‘wicked problems’: revisiting Rittel and Webber. *Policy Sciences*, 50(4), 539–547. <https://doi.org/10.1007/s11077-017-9302-4>
- Crozier, M. (2010). The bureaucratic phenomenon. Retrieved from <https://books.google.fr/books?hl=fr&lr=&id=MNIKVJWocmYC&oi=fnd&pg=PR5&dq=the+bureaucratic+phenomenon&ots=qYTQcGKDDh&sig=ZYB7DhbkFpAf0jaV V3-MTcqtBlQ#v=onepage&q=the+bureaucratic+phenomenon&f=false>

- Davis, L. W. (2008). The Effect of Driving Restrictions on Air Quality in Mexico City. *Journal of Political Economy*, 116(1), 38–81. <https://doi.org/10.1086/529398>
- De Montricher, N. (1995). Decentralization in France. *Governance*, 8(3), 405–418. <https://doi.org/10.1111/j.1468-0491.1995.tb00217.x>
- Deroubaix, J.-F., & Leheis, S. (2011). Les politiques de déplacements à Paris et à Londres. In P. Bezes & A. Siné (Eds.), *Gouverner (par) les finances publiques* (pp. 323–353). Paris: Presses de Sciences Po.
- Dery, D. (1998). Policy by the Way: When Policy is Incidental to Making Other Policies. *Journal of Public Policy*, 18(2), 163–176. <https://doi.org/10.1017/S0143814X98000087>
- Dodman, D. (2009). Blaming cities for climate change? An analysis of urban greenhouse gas emissions inventories. *Environment and Urbanization*, 21(1), 185–201. <https://doi.org/10.1177/0956247809103016>
- Downs, A. (1972). Up and Down with Ecology-the Issue-Attention Cycle. *Public Interest*, 28, 38–50.
- Duran, P., & Lazega, E. (2015). Introduction. Action collective : pour une combinatoire des mécanismes de coordination. *L'Année Sociologique*, 65(2), 291–304. <https://doi.org/10.3917/anso.152.0291>
- Eberlein, B. (1996). French center-periphery relations and science park development: Local policy initiatives and intergovernmental policymaking. *Governance*, 9(4), 351–374. Retrieved from <https://www.scopus.com/inward/record.uri?eid=2-s2.0-0030460882&partnerID=40&md5=aadad9e643cd408c38354784643466b9>
- Ekins, P., Gupta, J., & Boileau, P. (2019). Global Environment Outlook. GEO-6. Healthy Planet, Healthy People. Retrieved from <https://wedocs.unep.org/bitstream/handle/20.500.11822/275>
- Elgin, D. J., & Weible, C. M. (2013). A Stakeholder Analysis of Colorado Climate and Energy Issues Using Policy Analytical Capacity and the Advocacy Coalition Framework. *Review of Policy Research*, 30(1), 114–133. <https://doi.org/10.1111/ropr.12005>
- Elmore, R. F. (1980). Backward Mapping : Implementation Research and Policy Decisions. *Political Science Quarterly*, 94(4), 601–616.

- Emelianoff, C. (2005). Les agendas 21 locaux : quels apports sous quelles latitudes ? *Développement Durable et Territoires*, (Dossier 4), 0–17. <https://doi.org/10.4000/developpementdurable.532>
- Encinas, A. (2000). La sustentabilidad del desarrollo y la integración de políticas. In C. Muñoz Villareal & A. C. González Martínez (Eds.), *Economía , sociedad y medio ambiente. Reflexiones y avances hacia un desarrollo sustentable en México* (pp. 25–32). Mexico: INE.
- EPA (2021), Global Greenhouse Gas Emission Data, Retrieved August 27, 2021 from <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data>
- EPA. (2018). Criteria Air Pollutants. Retrieved August 9, 2019, from <https://www.epa.gov/criteria-air-pollutants#self>
- Epstein, R. (2015). La gouvernance territoriale : une affaire d’État La dimension verticale de la construction de l’action collective dans les territoires. *L’Année Sociologique*, 65(2), 457–482. <https://doi.org/10.3917/anso.152.0457>
- Estèbe, P., & Le Galès, P. (2003). La métropole parisienne : à la recherche du pilote ? *Revue Française d’administration Publique*, 107(3), 345. <https://doi.org/10.3917/rfap.107.0345>
- Eurostat (2017), Glossary:Carbon dioxide equivalent, Retrieved August 27, 2021 from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Carbon_dioxide_equivalent
- Fahey, B. K., & Pralle, S. B. (2016). Governing Complexity: Recent Developments in Environmental Politics and Policy. *Policy Studies Journal*, 44, S28–S49. <https://doi.org/10.1111/psj.12159>
- Fargette, B. (2000). Pollution atmosphérique en Ile-de-France : un révélateur du fonctionnement des institutions? *Pollution Atmosphérique*, 168, 533–548.
- Fekete, H., Mersmann, F., & Vieweg, M. (2013). Climate change mitigation in emerging economies: from potentials to actions. In *Climate change* (Vol. 19). Dessau-Roßlau.
- FES. (1991). *Política ambiental en México. El papel de las Organizaciones No Gubernamentales*. Mexico: Friedrich Ebert Foundation.

- Filho, W. L., Balogun, A. L., Olayide, O. E., Azeiteiro, U. M., Ayal, D. Y., Muñoz, P. D. C., ... Li, C. (2019). Assessing the impacts of climate change in cities and their adaptive capacity: Towards transformative approaches to climate change adaptation and poverty reduction in urban areas in a set of developing countries. *Science of the Total Environment*, 692, 1175–1190. <https://doi.org/10.1016/j.scitotenv.2019.07.227>
- Fligstein, N. (1987). The Intraorganizational Power Struggle : Rise of Finance Personnel to Top Leadership in Large Corporations , 1919-1979. *American Sociological Review*, 52(1), 44–58.
- Fligstein, N. (2001). Institutional Entrepreneurs and Cultural Frames - The case of the European Union's Single Market Program. *European Societies*, 3(3), 261–287. <https://doi.org/10.1080/14616690120079332>
- Flores Dewey, O. (2016). How Mexico City is Transforming a Jitney System into a World Class Bus Rapid Transit System. Cambridge, Massachusetts.
- Flores Dewey, O. (2019). From Jitneys to Bus Rapid Transit. In D. E. Davis & A. Altshuler (Eds.), *Transforming Urban Transport* (pp. 131–157). New York: Oxford University Press.
- Font, A., Guiseppin, L., Blangiardo, M., Gherzi, V., & Fuller, G. W. (2019). A tale of two cities: is air pollution improving in Paris and London? *Environmental Pollution*, 249(X), 1–12. <https://doi.org/10.1016/j.envpol.2019.01.040>
- Fowler, D., Brimblecombe, P., Burrows, J., Heal, M. R., Grennfelt, P., Stevenson, D. S., ... Vieno, M. (2020). A chronology of global air quality: The development of global air pollution. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 378(2183). <https://doi.org/10.1098/rsta.2019.0314>
- Foyer, J., Aykut, S., & Morena, E. (2017). Introduction. COP21 and the “climatisation” of Global Debates. In S. Aykut, J. Foyer, & E. Morena (Eds.), *Globalising the Climate. COP21 and the climatisation of global debates* (pp. 1–18). London & N.Y.: Routledge.
- Francke, E., Macías, J., & Schmid, G. (2012). Mobilising Private Investment for Bus Rapid Transit Systems: The case of Metrobus, Mexico City. Paris.
- Gakenheimer, R., Molina, L. T., Sussman, J., Zegras, C., Howitt, A., Makler, J., ... Villegas, A. (2002). The MCMA Transportation System: Mobility and Air Pollution. In L. T.

- Molina & M. J. Molina (Eds.), *Air Quality in the Mexico Megacity: An Integrated Assessment* (pp. 213–284). Dordrecht: Springer Netherlands.
- Garud, R., Hardy, C., & Maguire, S. (2007). Institutional entrepreneurship as embedded agency: An introduction to the special issue. *Organization Studies*, 28(7), 957–969. <https://doi.org/10.1177/0170840607078958>
- Garza, G. (1996). Uncontrolled air pollution in Mexico City. *Cities*, 13(5), 315–328.
- Garza, G., & Aragón, F. (1995). La contaminación atmosférica de la ciudad de México. *Estudios Demográficos y Urbanos*, 10(1 (28)), 35–65.
- Gerardin, N. (2018). Vers une centralité de la Région? Émergence et affirmation du rôle de la Région Île-de-France en matière climat-air-énergie. Université Paris Saclay (COMUE).
- Gerring, J. (2007). *Case Study Research: Principles and Practices*. New York: Cambridge University Press
- Gilbreath, J. (2003). *Environment and development in Mexico*. Washington: The CSIS Press.
- Gilli, F. (2014). *Grand Paris. L'émergence d'une métropole*. Paris: Presses de Sciences Po.
- Gonzalez, G. A. (2002). Urban Growth and the Politics of Air Pollution: The Establishment of California's Automobile Emission Standards. *Polity*, 35(2), 213–236.
- Green Party (2001). *Les Verts Paris, Pour rendre la ville plus respirable. Propositions des Verts pour les Transport à Paris*.
- Hall, P. A. (1993). Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain. *Comparative Politics*, 25(3), 275–296.
- Hall, P. A. (2015). Cognitive Approaches: A French Touch? Three Anglo- American Perspectives on French Policy Analysis. In L. Boussaguet, S. Jacquot, P. Ravinet, & P. Muller (Eds.), *Une French touch dans l'analyse des politiques publiques ?* (pp. 237–262). Paris: Presses de Sciences Po.
- Hall, P. A. (2016). Politics as a Process Structured in Space and Time. In O. Fioretos, T. G. Falleti, & A. Sheingate (Eds.), *The Oxford Handbook of Historical Institutionalism* (Vol. 1, pp. 1–24). <https://doi.org/10.1093/oxfordhb/9780199662814.013.2>
- Hall, P. A., & Taylor, R. C. R. (1996). Political Science and the Three New Institutionalisms. *Political Studies*, 44, 936–957.

- Halpern, C., & Le Galès, P. (2019). From City Streets to Metropolitan Scale in Paris and the Île de France Region. In D. E. Davis & A. Altshuler (Eds.), *Transforming Urban Transport* (pp. 251–277). New York: Oxford University Press.
- Halpern, C., & Pollard, J. (2017). Les effets du Grenelle de l'environnement sur l'action publique. *Gouvernement et Action Publique*, 2(2), 107–130. <https://doi.org/10.3917/gap.172.0107>
- Hansen, M., & Huang, Y. (1997). Road Supply and Traffic in California Urban Areas. *Transportation Research Part A: Policy and Practice*, 31(3), 205–218.
- Hansson, S. (2018). Analysing opposition–government blame games: argument models and strategic maneuvering. *Critical Discourse Studies*, 15(3), 228–246. <https://doi.org/10.1080/17405904.2017.1405051>
- Head, B. W. (2019). Forty years of wicked problems literature: forging closer links to policy studies. *Policy and Society*, 38(2), 180–197. <https://doi.org/10.1080/14494035.2018.1488797>
- Heinkelmann-Wild, T., & Zangl, B. (2020). Multilevel blame games: Blame-shifting in the European Union. *Governance*, 33(4), 953–969. <https://doi.org/10.1111/gove.12459>
- Heinkelmann-Wild, T., Kriegmair, L., & Rittberger, B. (2020). The EU multi-level system and the europeanization of domestic blame games. *Politics and Governance*, 8(1), 85–94. <https://doi.org/10.17645/pag.v8i1.2522>
- Helmke, G., & Levitsky, S. (2004). Informal Institutions and Comparative Politics: A Research Agenda. 2(4), 1–16. <https://doi.org/10.4337/9781848445611.00011>
- Hendrick, R., & Shi, Y. (2015). Macro-Level Determinants of Local Government Interaction. *Urban Affairs Review*, 51(3), 414–438. <https://doi.org/10.1177/1078087414530546>
- Hinterleitner, M. (2018). Policy failures, blame games and changes to policy practice. *Journal of Public Policy*, 38(2), 221–242. <https://doi.org/10.1017/s0143814x16000283>
- Hinterleitner, M. (2020). Policy Controversies and Political Blame Games. In *Policy Controversies and Political Blame Games*. <https://doi.org/10.1017/9781108860116>
- Holland, S. P. (2012). Spillovers from climate policy to other pollutants. In D. Fullerton & C. Wolfram (Eds.), *The Design and Implementation of US Climate Policy*. National

- Bureau of Economic Research Conference Report (pp. 79–90). Chicago: University of Chicago Press.
- Hood, C. (2002). The Risk Game and the Blame Game. *Government and Opposition*, 37(1), 15–37.
- Hood, C. (2011). *The Blame Game. Spin, Bureaucracy, and Self-Preservation in Government*. Princeton: Princeton University Press.
- Hooghe, L., & Marks, G. (2003). Unraveling the Central State, but How? Types of Multi-Level Governance. *The American Political Science Review*, 97(2), 233–243.
- Howlett, M., & Ramesh, M. (2014). The two orders of governance failure: Design mismatches and policy capacity issues in modern governance. *Policy and Society*, 33(4), 317–327. <https://doi.org/10.1016/j.polsoc.2014.10.002>
- Howlett, M., & Ramesh, M. (2016). Achilles' heels of governance: Critical capacity deficits and their role in governance failures. *Regulation and Governance*, 10(4), 301–313. <https://doi.org/10.1111/rego.12091>
- Howlett, M., & Rayner, J. (2007). Design Principles for Policy Mixes: Cohesion and Coherence in 'New Governance Arrangements.' *Policy and Society*, 26(4), 1–18. [https://doi.org/10.1016/s1449-4035\(07\)70118-2](https://doi.org/10.1016/s1449-4035(07)70118-2)
- Howlett, M., How, Y. P., & del Rio, P. (2015). The parameters of policy portfolios: verticality and horizontality in design spaces and their consequences for policy mix formulation. *Environment and Planning C: Government and Policy*, 33(5), 1233–1245. <https://doi.org/10.1177/0263774X15610059>
- Howlett, M., Mukherjee, I., & Woo, J. J. (2015). From tools to toolkits in policy design studies: the new design orientation towards policy formulation research. *Policy and Politics*, 43(2), 291–311. <https://doi.org/10.1332/147084414X13992869118596>
- Howlett, M., Vince, J., & del Río, P. (2017). Policy Integration and Multi-Level Governance : Dealing with the Vertical Dimension of Policy Mix Designs. *Politics and Governance*, 5(2), 69–78. <https://doi.org/10.17645/pag.v5i2.928>
- Hustedt, T., & Danken, T. (2017). Institutional logics in inter-departmental coordination: Why actors agree on a joint policy output. *Public Administration*, 95(3), 730–743. <https://doi.org/10.1111/padm.12331>

- Hyden, G., Court, J., & Mease, K. (2004). *Making Sense of Governance*. Boulder: Lynne Rienner.
- IAU îdF. (2017). *Fermeture des voies sur berges rive droite à Paris : bilan du suivi et de l'évaluation un an après*. Paris.
- IEA. (2017). *Energy Policies Beyond IEA Countries: Mexico 2017*. Paris: IEA.
- Inam, A. (2002). Crisis urbana y respuesta institucional en dos megaciudades. Lecciones del manejo de la devastación sísmica en las ciudades de México y Los Ángeles. *Estudios Demográficos y Urbanos*, 49, 107–149.
- INE, & SEMARNAP. (1999). *Estrategia Nacional de Acción Climática*. Mexico: Instituto Nacional de Ecología.
- INE, & SEMARNAT. (2007). *Mexico's Third National Communication to the United Nations Framework Convention on Climate Change*. Mexico.
- INECC. (2009). *Crónica del Instituto Nacional de Ecología*. México: INECC.
- INEGI (2021). Estadísticas de vehículos de motor registrados en circulación. Retrieved October 12, 2021 from https://www.inegi.org.mx/sistemas/olap/consulta/general_ver4/MDXQueryDatos.asp?#Regreso&c=
- Ingold, K., & Fischer, M. (2014). Drivers of collaboration to mitigate climate change: An illustration of Swiss climate policy over 15 years. *Global Environmental Change*, 24(1), 88–98. <https://doi.org/10.1016/j.gloenvcha.2013.11.021>
- INSEE(2021). Comparateur de territoire, Île de France. Retrieved November 8, 2021 from <https://www.insee.fr/fr/statistiques/1405599?geo=DEP-75+REG-11+EPCI-200054781>
- IPCC. (2014). *Climate Change 2014: Mitigation of Climate Change*. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (O. Edenhofer, R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, ... J. C. Minx, Eds.). Cambridge & N.Y.: Cambridge University Press.
- IQ Air. (2019). *2018 World Air Quality Report. Region and City PM2.5 Ranking*.

- IQAir (2019). Mexico City's current air pollution levels cause government to declare an Environmental Emergency. Retrieved October 25, 2021 from <https://www.iqair.com/mx/node/8581>
- ITDP (2021). What is BRT?. Retrieved on March 31, 2021 from <https://www.itdp.org/library/standards-and-guides/the-bus-rapid-transit-standard/what-is-brt/>
- Jacobs, A. M. (2016). Policy Making for the Long Term in Advanced Democracies. *Annual Review of Political Science*, 19(1), 433–454. <https://doi.org/10.1146/annurev-polisci-110813-034103>
- Jenkins-Smith, H. C., Nohrstedt, D., Weible, C. M., & Sabatier, P. A. (2014). The Advocacy Coalition Framework: Foundations, Evolution, and Ongoing Research. In P. A. Sabatier & C. M. Weible (Eds.), *Theories of the Policy Process*. Boulder: Westview Press.
- Jennings, E. T., & Ewalt, J. A. G. (1998). Interorganizational Coordination , Administrative Consolidation , and Policy Performance. 58(5), 417–428.
- Jensen, M. D., Koop, C., & Tatham, M. (2014). Coping with power dispersion? Autonomy, co-ordination and control in multilevel systems. *Journal of European Public Policy*, 21(9), 1237–1254. <https://doi.org/10.1080/13501763.2014.922861>
- Jobert, B., & Muller, P. (1987). *L'Etat en action*. Paris: Presses Universitaires de France.
- Jochim, A. E., & May, P. J. (2010). Beyond Subsystems: Policy Regime and Governance. *Policy Studies Journal*, 38(2), 303–327.
- Jordan, A., & Lenschow, A. (2010). Policy paper environmental policy integration: A state of the art review. *Environmental Policy and Governance*, 20(3), 147–158. <https://doi.org/10.1002/eet.539>
- Kalafatis, S. E. (2018). Comparing Climate Change Policy Adoption and Its Extension across Areas of City Policymaking. *Policy Studies Journal*, 46(3), 700–719. <https://doi.org/10.1111/psj.12206>
- Kamal-Chaoui, L., & Plouin, M. (2012). Villes et croissance verte Etude de cas de la région Paris / Ile-de-France. In *Documents de travail de l'OCDE sur le développement régional*. Paris.

- Karambelas, A., Holloway, T., Kinney, P. L., Fiore, A. M., Defries, R., Kieseewetter, G., & Heyes, C. (2018). Urban versus rural health impacts attributable to PM 2.5 and O₃ in northern India. *Environmental Research Letters*, 13(6). <https://doi.org/10.1088/1748-9326/aac24d>
- Kaufmann, D. (2018). Varieties of capital cities: The competitiveness challenge for secondary capitals. <https://doi.org/10.4337/9781788116435>
- Kaufmann, D., & Sidney, M. (2020). Toward an Urban Policy Analysis: Incorporating Participation, Multilevel Governance, and Seeing Like a City. *PS - Political Science and Politics*, 53(1), 1–5. <https://doi.org/10.1017/S1049096519001380>
- Kelemen, R. D. (2010). Globalizing European Union environmental policy. *Journal of European Public Policy*, 17(3), 335–349. <https://doi.org/10.1080/13501761003662065>
- Kingdon, J. W. (2014). *Agendas, Alternatives, and Public Policies* (Second Edi). Essex: Pearson Education.
- Knox-Hayes, J. (2012). Negotiating climate legislation: Policy path dependence and coalition stabilization. *Regulation and Governance*, 6(4), 545–567. <https://doi.org/10.1111/j.1748-5991.2012.01138.x>
- Koebele, E. A. (2020). Cross-Coalition Coordination in Collaborative Environmental Governance Processes. *Policy Studies Journal*, 48(3), 727–753. <https://doi.org/10.1111/psj.12306>
- Kübler, D., & Pagano, M. A. (2012). Urban Politics as Multilevel Analysis. In P. John, K. Mossberger, & S. E. Clarke (Eds.), *The Oxford Handbook of Urban Politics* (pp. 115–130). <https://doi.org/10.1093/oxfordhb/9780195367867.013.0007>
- Kurze, K., & Lenschow, A. (2018). Horizontal policy coherence starts with problem definition: Unpacking the EU integrated energy-climate approach. *Environmental Policy and Governance*, 28(5), 329–338. <https://doi.org/10.1002/eet.1819>
- Kwamena Onoma, A. (2010). The Contradictory Potential of Institutions: The Rise and Decline of Land Documentation in Kenya. In J. Mahoney & K. Thelen (Eds.), *Explaining Institutional Change. Ambiguity, Agency and Power* (pp. 63–93). Cambridge: Cambridge University Press.
- Landeros-Mugica, K., Ortega-Andeane, P., Reyes-Lagunes, I., & Sosa-Echeverría, R. (2014). Air pollution in Mexico City: attribution and perception of causes and effects / La

- contaminación del aire en la Ciudad de México: atribución y percepción de sus causas y efectos. *Psychology*, 5(1), 91–117. <https://doi.org/10.1080/21711976.2014.881665>
- Larrue, C., & Vlassopoulou, C. A. (1999). Changing definitions and networks in clean air policy in France. In W. Grant, A. Perl, & P. Knoepfel (Eds.), *The politics of improving urban air quality*. Aldershot: Edward Elgar.
- Lascoumes, P. (1994). *L'Écopouvoir*. Paris: La Découverte.
- Lascoumes, P. (2007a). Les instruments d'action publique, traceurs de changement: L'exemple des transformations de la politique française de lutte contre la pollution atmosphérique (1961-2006). *Politique et Sociétés*, 26(2–3), 73–89. <https://doi.org/10.7202/017664ar>
- Lascoumes, P. (2007b). Les instruments d'action publique, traceurs de changement. *Politique et Sociétés*, 26(2–3), 73. <https://doi.org/10.7202/017664ar>
- Lascoumes, P. (2008). Les politiques environnementales. In O. Borraz & V. Giraudon (Eds.), *Politiques publiques 1* (pp. 29–67). Retrieved from http://www.cairn.info.proxy.bib.ucl.ac.be:8888/resume.php?ID_ARTICLE=SCPO_BORRA_2008_01_0029
- Lascoumes, P., & Le Galès, P. (2007). Understanding Public Policy Through its Instruments: From the Nature of Instruments to the Sociology of Public Policy. *Governance*, 20(1), 1–21. <https://doi.org/10.1111/j.1468-0491.2007.00342.x>
- Laville, B. (2010). Du ministère de l'impossible au ministère d'État. *Revue Française d'administration Publique*, 134(2), 277–311.
- Lawrence, P. R., & Lorsch, J. W. (1967a). Differentiation and Integration in Complex Organizations. *Administrative Science Quarterly*, 12(1), 1–47.
- Lawrence, P. R., & Lorsch, J. W. (1967b). *Organization and Environment: Managing Differentiation and Integration*. Cambridge: Harvard University Press.
- Le Galès, P. (1995). Du gouvernement des villes à la gouvernance urbaine. *Revue Française de Science Politique*, 45(1), 57–95.
- Le Galès, P. (1998). Regulations and Governance in European Cities. *International Journal of Urban and Regional Research*, 22(3), 482–506.

- Le Galès, P. (2001). Urban Governance And Policy Networks: On The Urban Political Boundedness of Policy Networks. A French Case Study. *Public Administration*, 79(1), 167–184. <https://doi.org/10.1111/1467-9299.00251>
- Le Galès, P. (2014). Gouvernance. In L. Boussaguet, S. Jacquot, & P. Ravinet (Eds.), *Dictionnaire des politiques publiques* (pp. 299–308). Paris: Presses de Sciences Po.
- Le Lidec, P. (2018). La fabrique politique de la métropole du Grand Paris. *Gouvernement et Action Publique*, 7(4), 93–125.
- Lefèvre, C. (1998). Metropolitan Government and Governance in Western Countries : A Critical Review. *International Journal of Urban and Regional Research*, Volume 22(Issue 1), pages 9–25. <https://doi.org/10.1111/1468-2427.00120>
- Lefèvre, C., & Weir, M. (2012). Building Metropolitan Institutions. *The Oxford Handbook of Urban Politics*, (April), 1–13. <https://doi.org/10.1093/oxfordhb/9780195367867.013.0031>
- Lehoucq, F. (2007). ¿Qué es el fraude electoral? Su naturaleza, sus causas y consecuencias. *Revista Mexicana de Sociología*, 69(1), 1–38. Retrieved from <http://www.jstor.org/stable/20454272>
- Lepage, C. (1998). On ne peut rien faire, Madame Le Ministre. *Aménagement et Nature*, 129, 5–11.
- Lezama, J. L. (1997). La construcción gubernamental de la contaminación ambiental : la política del aire para la ciudad de México, 1979-1996. *Economía, Sociedad y Territorio*, 1(2), 317–362.
- Lezama, J. L. (2006). Metropolitan Environmental Management: The Case of Air Pollution in the Valle de México. In J. L. Lezama & J. B. Morelos (Eds.), *Population, City and Environment in Contemporary Mexico* (pp. 511–542). México: El Colegio de México.
- Lezama, J. L. (2010). Sociedad, medio ambiente y política ambiental, 1970-2000. In J. L. Lezama & B. Graizbord (Eds.), *Los grandes problemas de México. Medio Ambiente* (pp. 23–59). Ciudad de México: El Colegio de México.
- Lindblom, C. (1965). *The Intelligence of Democracy*. New York: The Free Press.
- Loaeza, S. (1995). Perspectivas para una historia política del Distrito Federal en el Siglo XX. *Historia Mexicana*, 45(1), 99–158.

- López Obrador, A. (2019, May 15). Celebración del Día del Maestro y promulgación de la reforma educativa. Conferencia presidente AMLO [Video File]. Retrieved from <https://www.youtube.com/watch?v=f6Yrc9hNfsU> Min. 73:18
- Lubell, M. (2003). Collaborative Institutions, Belief-Systems, and Perceived Policy Effectiveness. *Political Research Quarterly*, 56(3), 309–323.
- Lujambio, A. (1994). Régimen presidencial, democracia mayoritaria y los dilemas de la transición a la democracia en México. In A. Hernández Chávez (Ed.), *Presidencialismo y sistema político: México y los Estados Unidos*. México: El Colegio de México.
- Mahoney, J., & Thelen, K. (2010). A Theory of Gradual Institutional Change. In J. Mahoney & K. Thelen (Eds.), *Explaining Institutional Change. Ambiguity, Agency and Power*. Cambridge: Cambridge University Press.
- Mahoney, J., Mohamedali, K., & Nguyen, C. (2016). Causality and Time in Historical Institutionalism. 1(February 2018), 1–17. <https://doi.org/10.1093/oxfordhb/9780199662814.013.4>
- Majone, G. (1989). *Evidence, Argument, and Persuasion in the Policy Process*. New Haven: Yale University Press.
- Mansat, P. (2010). Entretien avec Pierre Mansat. *Quaderni*, 89–96.
- Maqueda Rojo, M. de la L. (2015). *Análisis de la construcción de la política pública de cambio climático para el Distrito Federal: repercusiones sociales y ambientales*. Universidad Autónoma Metropolitana.
- Martin, P. (2018, September). Grand entretien Valérie Pécresse : “Nous sommes lancés dans un contre-la-montre.” *Régions Magazine*, 14–19.
- Martínez Salgado, H. (2011). *Estudio de emisiones y características vehiculares en ciudades mexicanas. Fase IV: medición de emisiones en cinco ciudades y análisis de resultados globales. Informe final*. México.
- Massey, D. (2007). *World City*. Cambridge: Polity Press.
- May, P. J., Sapotichne, J., & Workman, S. (2006). Policy coherence and policy design. *Policy Studies Journal*, 34(3), 381–403.

- McConnell, A. (2018). Hidden agendas: Shining a light on the dark side of public policy. *Journal of European Public Policy*, 25(12), 1739–1758. <https://doi.org/10.1080/13501763.2017.1382555>
- Mehta, J. (2010). From “Whether” to “How”: The Varied Roles of Ideas in Politics. In D. Béland & R. H. Cox (Eds.), *How Ideas Matter: Reframing Political Research* (pp. 23–46). <https://doi.org/10.1093/acprof>
- Metcalf, L. (1994). International policy co-ordination and public management reform. *International Review of Administrative Sciences*, 60, 271–290.
- Miles, R. E. (1978). The Origin and Meaning of Miles’ Law. *Public Administration Review*, 38(5), 399–403. Retrieved from <http://links.jstor.org/sici?sici=0033-3352%28197809%2F10%2938%3A5%3C399%3ATOAMOM%3E2.0.CO%3B2-P>
- Miller, B. P. (1991). *Obedezco, Pero No Cumplo: Law, Transportation, Politics, and Pollution in Mexico City*. *Stanford Journal of International Law*, 28(173), 173–246.
- Molina, L. T., & Molina, M. J. (2002a). Air Quality Impacts: Local and Global Concern. In L. T. Molina & M. J. Molina (Eds.), *Air Quality in the Mexico Megacity: An Integrated Assessment* (pp. 1–19). Dordrecht: Springer Netherlands.
- Molina, L. T., & Molina, M. J. (2002c). Cleaning the Air: A Comparative Study. In L. T. Molina & M. J. Molina (Eds.), *Air Quality in the Mexico Megacity: An Integrated Assessment* (pp. 21–59). Dordrecht: Springer Netherlands.
- Molina, L. T., & Molina, M. J. (Eds.). (2002b). *Air Quality in the Mexico Megacity: An Integrated Assessment*. Dordrecht: Springer Netherlands.
- Muller, P. (2000). L’analyse cognitive des politiques publiques : vers une sociologie politique de l’action publique. *Revue Française de Science Politique*, 50(2), 189–208. <https://doi.org/10.3406/rfsp.2000.395464>
- Muller, P. (2005). Esquisse d’une théorie du changement dans l’action publique. In *Revue française de science politique* (Vol. 55). <https://doi.org/10.3917/rfsp.551.0155>
- Muller, P. (2015). *Les politiques publiques*. Paris: Presses Universitaires de France.
- Mumme, S. P., Bath, C. R., & Assetto, V. J. (1988). Political Development and Environmental Policy in Mexico. *Latin American Research Review*, 23(1), 7–34.

- Newig, J., & Koontz, T. M. (2014). Multi-level governance, policy implementation and participation: The EU's mandated participatory planning approach to implementing environmental policy. *Journal of European Public Policy*, 21(2), 248–267. <https://doi.org/10.1080/13501763.2013.834070>
- Niles, M. T., & Lubell, M. (2012). Integrative Frontiers in Environmental Policy Theory and Research. *Policy Studies Journal*, 40(SUPPL. 1), 41–64. <https://doi.org/10.1111/j.1541-0072.2012.00445.x>
- Nilsson, M., Zamparutti, T., Petersen, J. E., Nykvist, B., Rudberg, P., & McGuinn, J. (2012). Understanding Policy Coherence: Analytical Framework and Examples of Sector-Environment Policy Interactions in the EU. *Environmental Policy and Governance*, 22(6), 395–423. <https://doi.org/10.1002/eet.1589>
- Nodier-Köller, C. (2007). « La métropole, c'est la région ! » Entretien avec Jean-Paul Huchon. *Pouvoirs Locaux* No. 73 Vol. II. Pp. 114-116
- Observatoire Mondial des Villes pour la Qualité de l'Air (GUAPO) (2020). LA QUALITÉ DE L'AIR à Paris et dans la Métropole du Grand Paris. État des lieux & enjeux. Paris : Ville de Paris, pp. 44
- Observatoire régional de santé Île-de-France. (2014). *Erpurs : 20 ans de surveillance et d'évaluation des risques de la pollution urbaine sur la santé. Bilan et perspectives.*
- OCCA. (2019). Ruta urgente para mejorar la calidad del aire. Retrieved from <https://www.cemda.org.mx/wp-content/uploads/2019/05/Demana-Urgente-ok.pdf>
- OECD. (2003). *OECD Environmental Performance Reviews: Mexico*. Paris: OECD Publishing.
- OECD. (2006). *The Challenge for Capacity Development: Working Towards Good Practice*. Retrieved from <http://www.gsdr.org/docs/open/CC110.pdf>.
- OECD. (2010). *Mieux légiférer en Europe: France*. Paris: OECD Publishing.
- OECD. (2014). *Cities and climate change: national governments enabling local action*. Retrieved from <https://www.oecd.org/env/cc/Cities-and-climate-change-2014-Policy-Perspectives-Final-web.pdf%5Cn>
- OECD. (2015). *OECD Territorial Reviews: Valle de México, Mexico*. Paris: OECD Publishing.

- OECD. (2016). Better Policies for Sustainable Development 2016. A New Framework for Policy Coherence. <https://doi.org/DOI: http://dx.doi.org/10.1787/9789264256996-en>
- OECD. (2017). National Urban Policy in OECD Countries. <https://doi.org/10.1787/9789264271906-en>
- OECD. (2020). Cities in the world: A New Perspective on Urbanisation. In OECD Urban Studies/European Union. Paris.
- Oliva, P., Hernández Cortéz, D., Heredia Fragoso, M. A., Páramo Figueroa, V. H., Romero Torres, T., Ortíz Álvarez, J. A., ... López Nava, K. J. (2017). The link between clean air policy and climate change policy in Mexico : Building an agenda for evaluation and research. California.
- Orach, K., & Schlüter, M. (2016). Uncovering the political dimension of social-ecological systems: Contributions from policy process frameworks. *Global Environmental Change*, 40, 13–25. <https://doi.org/10.1016/j.gloenvcha.2016.06.002>
- Pacheco-Vega, R. (2020). Environmental regulation, governance, and policy instruments, 20 years after the stick, carrot and sermon typology. *Journal of Environmental Policy & Planning*, 22(5), 620–635. <https://doi.org/10.1080/1523908X.2020.1792862>
- Palonen, K. (2003). Four times of politics: Policy, polity, politicking, and politicization. *Alternatives*, 28(2), 171–186. <https://doi.org/10.1177/030437540302800202>
- Pardo, M. del C., & Vázquez, M. I. (2018). ¿Un evento complejo? La historia de la puesta en marcha de la línea 12 del Sistema de Transporte Colectivo Metro en la Ciudad de México. *Gestión y Política Pública*, 27(3), 19–88. <https://doi.org/10.29265/gypp.v27i3.458>
- Parsons, W. (2004). Not just steering but weaving: Relevant knowledge and the craft of building policy capacity and coherence. *Australian Journal of Public Administration*, 63(1), 43–57. <https://doi.org/10.1111/j.1467-8500.2004.00358.x>
- Peters, B. G. (1998). Managing horizontal government: the politics of co-ordination. *Public Administration*, 76(21), 295–311. <https://doi.org/10.1111/1467-9299.00102>
- Peters, B. G. (2015a). Policy capacity in public administration. *Policy and Society*, 34(3–4), 219–228. <https://doi.org/10.1016/j.polsoc.2015.09.005>

- Peters, B. G. (2015b). *Pursuing Horizontal Management. The Politics of Public Sector Coordination*. Lawrence, Kansas: University Press of Kansas.
- Peters, B. G. (2018). The challenge of policy coordination. *Policy Design and Practice*, 1(1), 1–11. <https://doi.org/10.1080/25741292.2018.1437946>
- Peters, B. G., & Pierre, J. (2012). Urban Governance. *The Oxford Handbook of Urban Politics*, (April), 1–12. <https://doi.org/10.1093/oxfordhb/9780195367867.013.0005>
- Peters, B. G., & Tarpey, M. (2019). Are wicked problems really so wicked? Perceptions of policy problems. *Policy and Society*, 38(2), 218–236. <https://doi.org/10.1080/14494035.2019.1626595>
- Pierre, J. (1999). Models of Urban Governance. *Urban Affairs Review*, 34(3), 372–396. <https://doi.org/10.1177/10780879922183988>
- Pierre, J. (2000). Understanding Governance. In J. Pierre (Ed.), *Debating Governance. Authority, Steering and Democracy* (pp. 1–10). New York: Oxford University Press.
- Pierre, J. (2011). *The Politics of Urban Governance*. New York: Palgrave Macmillan.
- Pierson, P. (2000a). Increasing Returns, Path Dependence, and the Study of Politics. *The American Political Science Review*, 94(2), 251–267.
- Pierson, P. (2000b). Not Just What, but When: Timing and Sequence in Political Processes. *Studies in American Political Development*, 14, 72–92.
- Pierson, P., & Skocpol, T. (2002). Historical Institutionalism in Contemporary Political Science. In I. Katznelson & H. V. Milner (Eds.), *Political Science The State of the Discipline* (pp. 693–721). New York: W.W. Norton.
- Pinson, G. (2015). Gouvernance et sociologie de l'action organisée. Action publique, coordination et théorie de l'État. In *L'Année sociologique* (Vol. 66). <https://doi.org/10.3917/anso.152.0483>
- Posada de la Concha, J.M. (2010, November 1st). Claudia Sheinbaum Pardo. UNAM. Retrieved April 1, 2021 from <http://www2.iingen.unam.mx/es-mx/BancoDeInformacion/Entrevistas/Paginas/ClaudiaSheinbaumPardo.aspx>
- Pralle, S. B. (2009). Agenda-setting and climate change. *Environmental Politics*, 18(5), 781–799. <https://doi.org/10.1080/09644010903157115>

- Prat, P. (2012). L'institutionnalisation de l'action de l'État en région parisienne : Du plan Prost à la police d'agglomération : quand l'Etat administre, aménage et surveille la région-capitale. Institut d'études politiques de Paris.
- Pulver, S. (2009). Climate Change Politics in Mexico. In H. Selin (Ed.), *Changing Climates in North American Politics : Institutions, Policymaking, and Multilevel Governance* (pp. 24–46). <https://doi.org/10.7551/mitpress/9780262012997.003.0002>
- Quadri de la Torre, G. (1991). Una breve crónica del ecologismo en México. In M. Schteingart & L. D'Andrea (Eds.), *Servicios urbanos, gestión local y medio ambiente* (pp. 337–353). México: El Colegio de México.
- Quiroz Benítez, D. E. (2013). Las ciudades y el cambio climático: el caso de la política climática de la Ciudad de México. *Estudios Demográficos y Urbanos*, 28(2), 343–382.
- Ramírez de la Cruz, E. E., & Smith, H. J. M. (2016). What Encourages Cities to Become Sustainable? Measuring the Effectiveness of Implementing Local Adaptation Policies. *International Journal of Public Administration*, 39(10), 718–728. <https://doi.org/10.1080/01900692.2015.1023445>
- Rayner, T., & Jordan, A. (2013). The European Union: The polycentric climate policy leader? *Wiley Interdisciplinary Reviews: Climate Change*, 4(2), 75–90. <https://doi.org/10.1002/wcc.205>
- Rittel, H. W. J., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, 4(2), 155–169. <https://doi.org/10.1007/BF01405730>
- Roccatti, M. (2007). La Comisión Ambiental Metropolitana: un nuevo esquema de coordinación. In E. O. Rabasa (Ed.), *La Constitución y el medio ambiente* (pp. 305–313). México: UNAM.
- Rocheft, D. A., & Cobb, R. W. (1993). Problem Definition, Agenda Access, and Policy Choice. *Policy Studies Journal*, 21(1), 56–71. <https://doi.org/10.1111/j.1541-0072.1993.tb01453.x>
- Rogge, K. S., & Reichardt, K. (2016). Policy mixes for sustainability transitions: An extended concept and framework for analysis. *Research Policy*, 45(8), 1620–1635. <https://doi.org/10.1016/j.respol.2016.04.004>

- Rogge, K. S., Kern, F., & Howlett, M. (2017). Conceptual and empirical advances in analysing policy mixes for energy transitions. *Energy Research and Social Science*, 33(October), 1–10. <https://doi.org/10.1016/j.erss.2017.09.025>
- Romero-Lankao, P. (2000). SUSTAINABILITY AND PUBLIC MANAGEMENT REFORM. Two Challenges for Mexican Environmental Policy. *American Review of Public Administration*, 30(4), 389–399.
- Rose, R. (1991). What Is Lesson-Drawing? *Journal of Public Policy*, 11(1), 3–30.
- Rothstein, B. (2012). Good Governance. In D. Levi-Faur (Ed.), *The Oxford Handbook of Governance* (pp. 144–154). <https://doi.org/10.1093/oxfordhb/9780199560530.013.0010>
- Rothstein, B., & Teorell, J. (2008). What is Quality of Government? A Theory of Impartial Institutions. *Governance*, 21(2), 165–190. <https://doi.org/10.1111/j.1468-0491.2008.00391.x>
- Roussel, I., & Charles, L. (2008). L'impossible territorialisation de la qualité de l'air. In C. Kergomard, R. Laganier, & H.-J. Scarwell (Eds.), *Environnement et Gouvernance des Territoires. Enjeux, expériences, et perspectives en région Nord-Pas de Calais*. Villeneuve d'Ascq: Presses universitaires du Septentrion.
- Roussel, I., Charles, L., & Frère, S. (2008). La qualité de l'air, du local au global : quelle gouvernance pour une subsidiarité efficace ? In C. Kergomard, R. Laganier, & H.-J. Scarwell (Eds.), *Environnement et Gouvernance des Territoires. Enjeux, expériences, et perspectives en région Nord-Pas de Calais*. Villeneuve d'Ascq: Presses universitaires du Septentrion.
- Sabatier, P. A. (1988). An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning Therein. *Policy Sciences*, 21(2/3), 129–168.
- Sabatier, P. A., & Weible, C. M. (2014). *Theories of the Policy Process*. Boulder: Westview.
- Sager, F. (2005). Metropolitan institutions and policy coordination: The integration of land use and transport policies in swiss Urban areas. *Governance*, 18(2), 227–256. <https://doi.org/10.1111/j.1468-0491.2005.00274.x>
- Salinas-Arreortua, L. A. (2017). Gestión metropolitana en la Zona Metropolitana del Valle de México: entre la legalidad y la voluntad política. *Papeles de Población*, 23(91), 143–169.

- Sánchez Gutiérrez, G., Lucatello, S., & Cecon Rocha, B. (2009). Programa de diálogo y construcción de acuerdos: cambio climático y seguridad nacional. Mexico.
- Scharpf, F. W. (1997). Games real actors play: Actor-centered institutionalism in policy research. <https://doi.org/10.4324/9780429500275>
- Schmidt, T. S., & Sewerin, S. (2018). Measuring the temporal dynamics of policy mixes – An empirical analysis of renewable energy policy mixes’ balance and design features in nine countries. *Research Policy*, 48(10), 103557. <https://doi.org/10.1016/j.respol.2018.03.012>
- Schmidt, V. A. (2002). *The Futures of European Capitalism*. New York: Oxford University Press.
- Schmidt, V. A. (2008). Discursive institutionalism: The explanatory power of ideas and discourse. *Annual Review of Political Science*, 11, 303–326. <https://doi.org/10.1146/annurev.polisci.11.060606.135342>
- Schneider, M., & Teske, P. (1992). *Toward A Theory of the Political Entrepreneur : Evidence from Local Government Author (s)*: Mark Schneider and Paul Teske Published by : American Political Science Association Stable URL : <http://www.jstor.org/stable/1964135> TOWARD A THEORY OF THE POLITI. *The American Political Science Review*, 86(3), 737–747.
- Scholten, P. (2013). Agenda dynamics and the multi-level governance of intractable policy controversies: The case of migrant integration policies in the Netherlands. *Policy Sciences*, 46(3), 217–236. <https://doi.org/10.1007/s11077-012-9170-x>
- Scholten, P. W. A. (2013). Agenda dynamics and the multi-level governance of intractable policy controversies: the case of migrant integration policies in the Netherlands. *Policy Sciences*, 46(3), 217–236.
- Selman, P. (1999). Three decades of environmental planning: what have we really learned? In M. Kenny & J. Meadowcroft (Eds.), *Planning Sustainability*. London & N.Y.: Routledge.
- SEMARNAT, & INECC. (2018). *Inventario Nacional de Emisiones de Gases y Compuestos de Efecto Invernadero 1990-2015*. Mexico.
- SEMARNAT. (2012). *Cambio Climático: una reflexión desde México*. México City: SEMARNAT.

- SEMARNAT. (n.d.). IMECA: Índice Metropolitano de la Calidad del Aire. Retrieved March 14, 2019, from <https://www.gob.mx/comisionambiental/articulos/imeca-indice-metropolitano-de-la-calidad-del-aire?idiom=es>
- Serrano Migallón, F. (2006). *Facultades metaconstitucionales del Poder Ejecutivo en México*. México City: UNAM.
- Sheinbaum, C. (2015). Bus Rapid Transportation Alternative. In UNDP (Ed.), *Successful Examples of Scientific Practices in Urban Sustainable Development*. New York: UNDP.
- Sheingate, A. (2010). Rethinking Rules. Creativity and Constraint in the U.S. House of Representatives. In J. Mahoney & K. Thelen (Eds.), *Explaining Institutional Change. Ambiguity, Agency and Power*. Cambridge: Cambridge University Press.
- Sheingate, A. D. (2003). Political Entrepreneurship, Institutional Change, and American Political Development. *Studies in American Political Development*, 17(02), 185–203. <https://doi.org/10.1017/s0898588x03000129>
- Shepsle, K. A. (1986). Institutional Equilibrium and Equilibrium Institutions. In H. (Ed) Weisberg (Ed.), *Political Science: The Science of Politics* (pp. 51–81). <https://doi.org/10.1177/0951692889001002002>
- Shepsle, K. A. (1989). Studying Institutions. Some Lessons from the Rational Choice Approach. *Journal of Theoretical Politics*, 1(2), 131–147.
- Söderberg, C. (2016). Complex governance structures and incoherent policies: Implementing the EU water framework directive in Sweden. *Journal of Environmental Management*, 183, 90–97. <https://doi.org/10.1016/j.jenvman.2016.08.040>
- Solorio, I. (2021). Leader on paper, laggard in practice: policy fragmentation and the multi-level paralysis in implementation of the Mexican Climate Act. *Climate Policy*, 0(0), 1–15. <https://doi.org/10.1080/14693062.2021.1894084>
- Sosa-Nunez, G., & Lucatello, S. (2016). Analysing Political Discourse: Mexico's Climate Change Policy. *L'Europe En Formation*, 380(2), 71–89. <https://doi.org/10.3917/eufor.380.0071>
- Sosa-Rodriguez, F. S. (2014). From federal to city mitigation and adaptation: Climate change policy in Mexico City. *Mitigation and Adaptation Strategies for Global Change*, 19(7), 969–996. <https://doi.org/10.1007/s11027-013-9455-1>

- Soss, J., & Schram, S. F. (2007). A public transformed? Welfare reform as policy feedback. *American Political Science Review*, 101(1), 111–127. <https://doi.org/10.1017/S0003055407070049>
- Soto Coloballes, N. V. (2017). El control de la contaminación atmosférica en México (1970-1980): tensiones y coincidencias entre el sector salud y los industriales. *Dynamis*, 37(1), 187–209. <https://doi.org/10.4321/S0211-95362017000100009>
- Steinebach, Y. (2019). Instrument choice, implementation structures, and the effectiveness of environmental policies: A cross-national analysis. *Regulation and Governance*, (December). <https://doi.org/10.1111/rego.12297>
- Stephenson, P. (2013). Twenty years of multi-level governance : ‘ Where Does It Come From ? What Is It ? Where Is It Going ?’ *Journal of European Public Policy*, 20(6), 817–837. <https://doi.org/10.1080/13501763.2013.781818>
- Stone Sweet, A., Fligstein, N., & Sandholtz, W. (2001). The Institutionalization of the European Space. In A. Stone Sweet, W. Sandholtz, & N. Fligstein (Eds.), *The Institutionalization of Europe* (pp. 1–28). New York: Oxford University Press.
- Streeck, W., & Thelen, K. (2005). Institutional Change in Advanced Political Economies. In W. Streeck & K. Thelen (Eds.), *Beyond Continuity. Institutional Change in Advanced Political Economies* (pp. 1–39). New York: Oxford University Press.
- Szarka, J. (2011). Climate Policy in France: Between National Interest and Global Solidarity? *Politique Européenne*, 33(1), 155–183.
- Téton, S., Robin, D., & Genève, C. (2010). Surveillance de la qualité de l’air en France. Outils, missions, avenir. *Revue Française d’allergologie*, 50, 82–87. <https://doi.org/10.1016/j.reval.2009.11.006>
- Thelen, K. (2004). *How Institutions Evolve: The political Economy of Skills in Germany, Britain, The United States, and Japan*. New York: Cambridge University Press.
- Thelen, K., & Mahoney, J. (2015). Comparative-historical analysis in contemporary political science. In J. Mahoney & K. Thelen (Eds.), *Advances in Comparative-Historical Analysis*. Cambridge: Cambridge University Press.
- Thoenig, J. (2005). Territorial administration and political control. Decentralization in France. *Public Administration*, 85(3), 685–708.

- Thoenig, J.-C., & Duran, P. (1996). L'Etat et la gestion publique territoriale. *Revue Française de Science Politique*, 46(4), 724. <https://doi.org/10.3406/rfsp.1996.395082>
- Torres Ramírez, B. (2013). El activismo en materia de cambio climático en la búsqueda del reposicionamiento internacional de México. In *Foro Internacional* (Vol. 53).
- Tosun, J., & Hartung, U. (2018). Decentralising competences in multi-level systems: insights from the regulation of genetically modified organisms. *West European Politics*, 41(3), 803–823. <https://doi.org/10.1080/01402382.2017.1395253>
- Tosun, J., & Howlett, M. (2021). Managing slow onset events related to climate change : the role of public bureaucracy. *Current Opinion in Environmental Sustainability*, 50, 43–53. <https://doi.org/10.1016/j.cosust.2021.02.003>
- Tosun, J., & Lang, A. (2017). Policy integration: mapping the different concepts. *Policy Studies*, 38(6), 553–570. <https://doi.org/10.1080/01442872.2017.1339239>
- Trein, P. (2015). Co-Evolution of Policy Sectors: Health Care and Public Health in Five Countries (Université de Lausanne). <https://doi.org/10.2139/ssrn.2548182>
- Trein, P. (2017a). A New Way to Compare Horizontal Connections of Policy Sectors: “Coupling” of Actors, Institutions and Policies. *Journal of Comparative Policy Analysis: Research and Practice*, 19(5), 419–434. <https://doi.org/10.1080/13876988.2016.1225342>
- Trein, P. (2017b). Coevolution of policy sectors: A comparative analysis of healthcare and public health. *Public Administration*, 95(3), 744–758. <https://doi.org/10.1111/padm.12323>
- Trein, P., & Maggetti, M. (2019). Patterns of Policy Integration and Administrative Coordination Reforms: A Comparative Empirical Analysis. *Public Administration Review*, 80(April), 198–208. <https://doi.org/10.1111/puar.13117>
- Ugalde, L. C. (2000). *Vigilando al Ejecutivo*. México: Miguel Ángel Porrúa.
- UN-Habitat. (2014). *Planning for Climate Change: A Strategic, Values-based Approach for Urban Planners*. Kenya: UN-Habitat.
- UNFCCC (1997) *Kyoto Protocol to the United Nations Framework Convention on Climate Change adopted at COP3 in Kyoto, Japan, on 11 December 1997*.

- UNFCCC (2021). Introduction to Mitigation. United Nations Framework Convention on Climate Change. Retrieved on November 5, 2021 from <https://unfccc.int/topics/mitigation/the-big-picture/introduction-to-mitigation>
- United Nations Environment Programme (UNEP) (2021), Cities and Climate Change, Retrieved August 30 from <https://www.unep.org/explore-topics/resource-efficiency/what-we-do/cities/cities-and-climate-change>
- United Nations Office for Disaster Risk Reduction (UNDRR) (2010). UNISDR to nominate Mayor Ebrard of Mexico City a “Making Cities Resilient” champion. Retrieved April 2, 2021 from <https://www.undrr.org/news/unisdr-nominate-mayor-ebrard-mexico-city-making-cities-resilient-champion>
- United Nations Office for Disaster Risk Reduction (UNDRR) (2015). Campeones y Campeonas. Marcelo Ebrard. Retrieved April 2nd, 2021 from <https://www.eird.org/camp-10-15/marcelo-ebrard.html>
- United Nations, (2021), Cities and Pollution, Retrieved August 30, 2021 from <https://www.un.org/en/climatechange/climate-solutions/cities-pollution>
- Valenzuela, J. M. (2014). Climate Change Agenda at Subnational Level in Mexico: Policy coordination or policy competition? *Environmental Policy and Governance*, 24, 188–203. <https://doi.org/10.1002/eet.1638>
- Valenzuela, J. M., & Studer, I. (2017). Climate Change Policy and Power Sector Reform in Mexico under the Golden Age of Gas. In D. Arent, C. Arndt, M. Miller, F. Tarp, & O. Zinaman (Eds.), *The Political Economy of Clean Energy Transitions* (pp. 410–429). Oxford: Oxford University Press.
- Vlassopoulou, C. A. (1999). *La lutte contre la pollution atmosphérique urbaine en France et en Grèce. Définition des problèmes publics et changement de politique*. Université Panthéon-Assas Paris II.
- von Lüpke, H., & Well, M. (2020). Analyzing climate and energy policy integration: the case of the Mexican energy transition. *Climate Policy*, 20(7), 832–845. <https://doi.org/10.1080/14693062.2019.1648236>
- Voß, J.-P., & Kemp, R. (2006). Sustainability and reflexive governance: introduction. In J.-P. Voß, D. Bauknecht, & R. Kemp (Eds.), *Reflexive Governance for Sustainable Development*. Cheltenham: Edward Elgar.

- Voß, J.-P., & Simons, A. (2014). Instrument constituencies and the supply side of policy innovation: the social life of emissions trading. *Environmental Politics*, 23(5), 735–754. <https://doi.org/10.1080/09644016.2014.923625>
- Weaver, K. (1986). The Politics of Blame Avoidance. *Journal of Public Policy*, 6(4), 371–398.
- Weaver, K. (1989). Setting and Firing Policy Triggers. *Journal of Public Policy*, 9(3), 307–336.
- Wei, T., Wu, J., & Chen, S. (2021). Keeping Track of Greenhouse Gas Emission Reduction Progress and Targets in 167 Cities Worldwide. *Frontiers in Sustainable Cities*, 3, 1–13. <https://doi.org/10.3389/frsc.2021.696381>
- Weible, C. M., & Ingold, K. (2018). Why advocacy coalitions matter and practical insights about them. *Policy and Politics*, 46(2), 325–343. <https://doi.org/10.1332/030557318X15230061739399>
- Weible, C. M., Ingold, K., Nohrstedt, D., Henry, A. D., & Jenkins-Smith, H. C. (2020). Sharpening Advocacy Coalitions. *Policy Studies Journal*, 48(4), 1054–1081. <https://doi.org/10.1111/psj.12360>
- Weingast, B. R. (2002). Rational-Choice Institutionalism. In I. Katznelson & H. V Milner (Eds.), *Political Science. The State of the Discipline* (pp. 661–692). <https://doi.org/10.1093/oxfordhb/9780199548460.003.0002>
- Whitehead, L. (1996). Una transición difícil de alcanzar: la lenta desaparición del gobierno de partido dominante en México. *Política y Gobierno*, 3(1), 49–51.
- WHO. (2016). *Ambient air pollution. A global assessment of exposure and burden of disease*. Geneva.
- WHO. (2017). *Evolution of WHO air quality guidelines: past, present and future*. Copenhagen.
- WHO. (2019a). *Ambient (outdoor) air quality database, by country and city*. Retrieved February 13, 2020, from https://www.who.int/airpollution/data/aap_air_quality_database_2018_v14.xlsx?ua=1
- WHO. (2019b). *Ambient air pollution: Pollutants*. Retrieved August 9, 2019, from <https://www.who.int/airpollution/ambient/pollutants/en/>
- Williams, M. E. (2001). *Market Reforms in Mexico: Coalitions, Institutions, and the Politics of Policy Change*. Maryland: Rowman & Littlefield Publishers.

- Wilson, W. (1887). The Study of Administration. *Political Science Quarterly*, 2(2), 197–222.
- World Bank. (2010). *Cities and Climate Change : An Urgent Agenda*. Washington.
- World Bank. (2021). Mexico City Insurgentes Bus Rapid Transit System Carbon Finance Project. Retrieved April 23, 2021, from <https://projects.worldbank.org/en/projects-operations/project-detail/P082656>
- World Health Organization (2018), Ambient (outdoor) air pollution, Retrieved August 30, 2021 from [https://www.who.int/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health](https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health)
- World Health Organization (2021), Air pollution, Retrieved August 30, 2021 from https://www.who.int/health-topics/air-pollution#tab=tab_1
- WRI. (2021). Nuestra Historia.
- Wu, X., Ramesh, M., & Howlett, M. (2015). Policy capacity: A conceptual framework for understanding policy competences and capabilities. *Policy and Society*, 34(3–4). <https://doi.org/10.1016/j.polsoc.2015.09.001>
- WWF (2019). Habitantes del Valle de México no han podido respirar aire limpio en lo que va del 2019: urge la aplicación inmediata de las medidas de control anunciadas por la CAME. Retrieved on November 3, 2021 from <https://www.wwf.org.mx/?350151/Habitantes-del-Valle-de-Mexico-no-han-podido-respirar-aire-limpio-en-lo-que-va-del-2019---urge-la-aplicacion-inmediata-de-las-medidas-de-control-anunciadas-por-la-CAME>
- Yalçın, M., & Lefèvre, B. (2012). Local Climate Action Plans in France: Emergence, Limitations and Conditions for Success. *Environmental Policy and Governance*, 22(2), 104–115. <https://doi.org/10.1002/eet.1575>
- Zeemering, E. (2012). Recognising interdependence and defining multi- level governance in city sustainability plans. *Local Environment*, 17(4), 409–424. <https://doi.org/10.1080/13549839.2012.678315>
- Zittoun, P. (2008). One Policy for Two Problems : The Controversy Surrounding the Parisian Tramway. *Planning Theory and Practice*, 9(4), 459–474. <https://doi.org/10.1080/14649350802481421>

Zittoun, P. (2013). *La fabrique politique des politiques publiques. Une approche pragmatique de l'action publique*. Paris: Presses de Sciences Po.

Zittoun, P. (2017). *The Political Process of Policymaking. A pragmatic approach to public policy*. Basingstoke: Palgrave MacMillan

Newspaper articles and news wires

BBC. (2018, December 7). Claudia Sheinbaum: ¿Cómo está relacionada la nueva jefa de gobierno de CDMX con el Nobel de la Paz? Retrieved March 31, 2012 from <https://www.bbc.com/mundo/noticias-america-latina-46477748>

“Calderón tiene miedo: Ebrard.” (2006, July 26). *Proceso*. Retrieved April 27, 2021 from <https://www.proceso.com.mx/nacional/estados/2006/7/26/calderon-tiene-miedo-ebrard-45486.html>

Circulation alternée à Paris: sur LCI, Anne Hidalgo demande à Valérie Pécresse de “se consacrer” à sa tâche plutôt que de “polémiquer sur d’autres sujets” (2016, December 7). LCI Newsroom. Retrieved June 2, 2020 from <https://www.lci.fr/france/circulation-alternee-a-paris-sur-lci-anne-hildago-demande-a-valerie-pecresse-de-se-consacre-a-sa-tache-plutot-que-de-polemiquer-sur-d-autres-sujets-2016294.html>

“Crítica Lichtinger construcción de segundos pisos; Sheinbaum la defiende” (2001, December 20). *Proceso*. Retrieved march 30, 2021 from <https://www.proceso.com.mx/nacional/estados/2001/12/20/critica-lichtinger-construccion-de-segundos-pisos-sheinbaum-la-defiende-63535.html>

“Michel Giraud parie sur l’entraide” (1987). *Le Monde*. Retrieved on May 29, 2020 from Europresse.

“Sería “extraordinario” ver a Barrales en Senado: Ebrard” (2012, January 25). *El Economista*. Retrieved on April 5, 2021 from <https://www.eleconomista.com.mx/politica/Seria-extraordinario-ver-a-Barrales-en-Senado-Ebrard-20120125-0130.html>

Asegura Mancera que ayer no había mucha contaminación [Mancera claims that yesterday wasn’t very polluted]. 2016. *El Universal*. March 17.

Böhme, H. (2009, December 20). Comentario: fiasco climático en Copenhague. *DW*. Retrieved October 13, 2021 from <https://www.dw.com/es/comentario-fiasco-clim%C3%A1tico-en-copenhague/a-5041073>

- Bontinck, J-G. (2018, June 6). La région Ile-de-France a payé 130 000 € de frais d'avocats pour son recours sur les voies sur berge. *Le Parisien*. Retrieved October 29, 2021 from <https://www.leparisien.fr/info-paris-ile-de-france-oise/transports/la-region-ile-de-france-a-payé-130-000-eur-de-frais-d-avocats-pour-son-recours-sur-les-voies-sur-berge-06-06-2018-7756902.php>
- Bravo, E. (2002, December 4). Víctor Lichtinger: La Semarnat no impedirá el Segundo piso vial. *La Crónica de Hoy*. Retrieved march 30, 2021 from <http://www.cronica.com.mx/notas/2002/10825.html>
- Cambier, C. (2020, January 31st). La pollution de l'air cause-t-elle vraiment 6600 morts chaque année à Paris et en petite couronne ?. LCI. Retrieved on November 3, 2021 from <https://www.lci.fr/planete/la-pollution-de-l-air-cause-t-elle-6600-morts-par-an-a-paris-et-en-petite-couronne-comme-le-dit-benjamin-griveaux-2144118.html>
- Caño, A. (1988, July 14). “La oposición mexicana lucha desunida contra el fraude” *El País*.
- Contreras, Cintya. (2016, April 24). Retrato hablado: Martín Alberto Gutiérrez Lacayo, un conciliador entre seis frentes. *Excelsior*. Retrieved May 21, 2019 from <https://www.excelsior.com.mx/comunidad/2016/04/24/1088514>. Consultado 21 Mayo.
- De Ravinel, S. (2013, March 15). La Métropole de Paris ravive la discorde Delanoë-Huchon. *Le Figaro* . Retrieved on May 18, 2020 from <https://www.lefigaro.fr/politique/2013/03/05/01002-20130305ARTFIG00564-la-metropole-de-paris-ravive-la-discorde-delanoë-huchon.php>
- Delanoë, B. (2009, March 5). « Paris Métropole : innovons ! » *Le Monde*.
- Delgado, M. (2004, December 27), ¿A quién beneficia el segundo piso del periférico?. *Reforma*. Retrieved on March 30, 2021 from www.martha.org.mx/aldf/articulos/articulos/c_2opiso.htm
- Delgado, M. (2005, July 10). Metrobús: la solución o el caos. *Reforma*.
- Ensemble Île-de-France (2018, June 7). Voies sur berge : Valérie Pécresse peut compter sur la Région pour régler ses frais d'avocats. Press release.
- Fernández, Emilio. 2016. Edomex restringe entrada de 8 mil ton de basura de CDMX [The State of Mexico restricts access to 8 thousand tons of waste coming from Mexico City]. *El Universal*. March 16.

- García, K. (2020, March 19). Pemex: costo promedio de extracción de barril de crudo es de 14.2 dólares. *El Economista*. Retrieved April 29, 2021 from <https://www.eleconomista.com.mx/empresas/Pemex-cost-promedio-de-extraccion-de-barril-de-crudo-es-de-14.2-dolares-20200319-0018.html>
- González Alvarado, R. (2006, August 25). “La Constitución nos da el derecho a defendernos”. No aceptaremos la imposición de Calderón”, afirma Ebrard. *La Jornada*. Retrieved April 27, 2021 from <https://www.jornada.com.mx/2006/08/25/index.php?section=politica&article=016n2p0l>
- González Santiago, E. (2002, April 30). Acuerdan Asambleístas solicitar la suspensión de los segundos pisos. *El Heraldo de México*.
- Hernández, E. and J.J. Arreola (2012, November 19). Ebrard recrimina falta de apoyo contra cambio climático. *El Universal* . Retrieved on April 2, 2021 from <https://archivo.eluniversal.com.mx/notas/884140.html> .
- <http://www.eluniversal.com.mx/articulo/nacion/politica/2016/03/16/ser-mas-audaces-y-determinantes-contr-contaminacion-pide-epn>
- Jérôme, B. (2009, March 5). Dans un chat au Monde.fr, le président d'Ile-de-France dit craindre la création "d'une administration tentaculaire du Grand Paris". *Le Monde*.
- La démission de Nicolas Hulot : « Je ne veux plus me mentir » (2018, August 28). *Le Monde*. Retrieved October 5, 2021 from https://www.lemonde.fr/politique/article/2018/08/28/nicolas-hulot-annonce-qu-il-quitte-le-gouvernement_5346903_823448.html
- Lajous, A. (2010, December 31). Las contradicciones de Ebrard y Delgado. *El Universal*. Retrieved March 31, 2021 from <https://archivo.eluniversal.com.mx/editoriales/51168.html>
- Macías, V. and T. Rosas (2012, October 30). Se despiden con confrontación por Línea 12. *El Economista*. Retrieved April 27, 2021 from <https://www.eleconomista.com.mx/politica/Se-despiden-con-confrontacion-por-Linea-12-20121030-0092.html>
- Mediavilla, Lucas (2018, August 28). Nicolas Hulot quitte le gouvernement, l'Elysée « fier » de son bilan, *Les Echos*. Retrieved October 5, 2021 from

<https://www.lesechos.fr/politique-societe/politique/nicolas-hulot-quitte-le-gouvernement-lelysee-fier-de-son-bilan-137454>

Melgar, I. (2011, July 1st). Ebrard da la mano a Calderón... cuatro años y 7 meses después. *Excelsior*. Retrieved April 27, 2021 from <https://www.excelsior.com.mx/2011/07/01/nacional/749382>

Mendoza, E. and E. Ramírez (2011, July 7). “Barrales, la candidata de Ebrard”. *Contralínea*, Retrieved on April 5, 2021 from <https://www.contralinea.com.mx/archivo-revista/2011/07/07/barrales-la-candidata-de-ebarrard/>

Micha, Adela. 2016. Entrevista a Miguel Ángel Mancera sobre la contingencia ambiental. <https://www.youtube.com/watch?v=s9iaPCoaqTE&t=780s> (25 September 2020).

Miranda, Justino. (2016, March 17). Mandan basura de CDMX a Morelos. *El Universal*. <http://www.eluniversal.com.mx/articulo/estados/2016/03/17/mandan-basura-de-cdmx-morelos>

Notimex. 2014. Promueve PAN-DF amparos contra Hoy No Circula [PAN-DF promotes amparo trials against No Driving Day]. *Milenio Diario*. July 1st.

Pantoja, Sara. 2015. Mancera pide modificar el Hoy No Circula sabatino [Mancera asks to change the on Saturdays]. *Proceso*. July 3.

Pazos, Francisco. 2016. Parque vehicular, amenaza: Semovi; hay 5.5 millones de autos [Vehicle fleet, a threat: Semovi; there are 5.5. million cars]. *Excelsior*. March 16.

Pollution: Hidalgo réclame « des mesures automatiques » de restriction des véhicules polluants (2019, February 24). *Le Figaro*. Retrieved October August 10, 2020 from <https://www.lefigaro.fr/flash-actu/2019/02/24/97001-20190224FILWWW00067-pollution-hidalgo-reclame-des-mesures-automatiques-de-restriction-de-circulation-des-vehicules-polluants.php>

Radisson, L. (2016, April 6). Pics de pollution en Île-de-France : la maire de Paris et la présidente de région seront consultées. *Actu-environnement*. Retrieved October 27, 2021 from <https://www.actu-environnement.com/ae/news/arrete-pics-pollution-maire-paris-presidente-region-hidalgo-pecresse-consultation-26584.php4>

Ramos Magaña, A. (2019, January 2). Fernando Menéndez, siempre en la vanguardia ambiental. *24 Horas*. Retrieved September 18, 2020 from <https://www.24-horas.mx/2019/01/02/fernando-menendez-siempre-en-la-vanguardia-ambiental/>

- Ramos, C. (2010, November 23). Calderón y Ebrard por fin saldrán juntos en la foto. *Animal Político*. Retrieved April 15, 2021 from <https://www.animalpolitico.com/2010/11/calderon-y-ebrard-juntos-pero-no-revuelos/>
- Reséndiz, Francisco, Penélope Aldaz, Rebeca Jiménez y Teresa Montaña. (2016, March 16). Medidas más estrictas antipolución, pide EPN. *El Universal*. <http://www.eluniversal.com.mx/articulo/metropoli/df/2016/03/16/medidas-mas-estrictas-antipolucion-pide-epn>
- Reséndiz, Francisco. (2016, March 16). Ser más audaces y determinantes contra contaminación, pide EPN. *El Universal*.
- Rivera, Astrid. 2016. No pasan verificación 50% de autos con holograma cero [50% of cars with hologram-sticker zero do not meet verification criteria]. *El Universal*. August 15.
- Salamé , L. (2018, March 5). Valérie Pécresse : "Il faut réintégrer, de manière apaisée, la voiture dans les voies sur berges". *France Inter*. Retrieved on 10 June, 2020 from <https://www.franceinter.fr/emissions/l-invite-de-7h50/l-invite-de-7h50-05-mars-2018>
- Saldierna, G. and A. Enciso (2010, December 8). Calderón impide presentaciones de Ebrard y Gurirab. *La Jornada*. Retrieved April 27, 2021 from <https://www.jornada.com.mx/2010/12/08/sociedad/046n2soc>
- Schneider, B. (2018, November 12). Valérie Pécresse : «La sortie du diesel ne doit pas créer une ségrégation». *Le Parisien*. Retrieved June 10, 2020 from <https://www.leparisien.fr/info-paris-ile-de-france-oise/transports/valerie-pecresse-la-sortie-du-diesel-peut-creer-une-segregation-12-11-2018-7941060.php>
- Soriano, Karyna (2002, April 30). El GDF debe dar prioridad al transporte público de pasajeros: Molina. *La Crónica de Hoy*.
- Souheyre, A. (2016, December 15). Anne Hidalgo : « L'avenir de Paris, c'est le Grand Paris ». *L'humanité*. Retrieved June 10, 2020 from <https://www.humanite.fr/anne-hidalgo-lavenir-de-paris-cest-le-grand-paris-628713>
- Viale, O. (2010, January 6). Como diputada, Martha Delgado se opuso a segundos pisos, hoy apoya Supervía: PAN-DF. *La Crónica de Hoy*. Retrieved March 31, 2021 from <https://www.cronica.com.mx/notas/2010/509767.html>
- Zamarrón, I. (2019, December 23). Primero orden, luego la jubilación de micros: Andrés Lajous. *El Sol de México*. Retrieved on April 1, 2021 from

<https://www.elsoldemexico.com.mx/metropoli/cdmx/primero-orden-luego-la-jubilacion-de-micros-andres-lajous-4619579.html>

Official publications

Mexico City

Government of the Federal District (D.F.) (1990). Integral Program Against Atmospheric Pollution in the Metropolitan Area of Mexico City. Mexico City.

Government of the Federal District (D.F.) (2000). Programa de Desarrollo 2000-2006.

Government of the Federal District (D.F.) (2004). Estrategia Local de Acción Climática.

Government of the Federal District (D.F.) (2007). Plan verde.

Government of the Federal District (D.F.) (2008). Programa de Acción Climática.

Government of the Federal District (D.F.) (2010). Plan Verde en 11 Párrafos. Retrieved April 2, 2021 from <http://www.planverde.cdmx.gob.mx/ecotips/73-miscelanea/297-plan-verde-en11-parrafos.html>

Government of the Federal District (D.F.) (2011). Cuatro Años de Avances. Plan Verde de la Ciudad de México, Mexico City.

Megalopolitan Environmental Commission (CAME) (2014). Segundo Convenio Modificatorio F1490 [Amending contract to F1490]. (2014, November 28).

Megalopolitan Environmental Commission (CAME) (2016). Fideicomiso para Apoyar Programas, Proyectos y Acciones Ambientales en la Megalópolis. Retrieved March 20, 2019, from <https://www.gob.mx/comisionambiental/acciones-y-programas/fideicomiso-para-apoyar-programas-proyectos-y-acciones-ambientales-en-la-megalopolis>

Megalopolitan Environmental Commission (CAME) (2020). Condiciones meteorológicas son factores clave para la contaminación del aire en la Zona Metropolitana del Valle de México (ZMVM). Retrieved January 5, 2021 from <https://www.gob.mx/comisionambiental/prensa/condiciones-meteorologicas-son-factores-clave-para-la-contaminacion-del-aire-en-la-zona-metropolitana-del-valle-de-mexico-zmvm>.

Megalopolitan Environmental Commission (CAME) (N.D.). Operation Rules for Trust Fund F1490. Mexico City.[Provided electronically by the Executive Coordination of CAME].

Metropolitan Environmental Commission (CAM) (2002). Programa para Mejorar la Calidad

- del Aire en la Zona Metropolitana del Valle de México, 2002-2010-PROAIRE 2 [Program to improve the air quality in the Metropolitan Area of Mexico]. Mexico City.
- Metropolitan Environmental Commission (CAM). (1996). Programa para Mejorar la Calidad del Aire en la Zona Metropolitana del Valle de México, 1995-2000-PROAIRE 1 [Program to improve the air quality in the Metropolitan Area of Mexico]. Mexico City.
- Metropolitan Environmental Commission (CAM). (1999). “Inventario de Emisiones a la atmósfera de la Zona Metropolitana del Valle de México, 1996”. Mexico City.
- Mexican Congress (1988, December 1st). Presidential inauguration speech of Carlos Salinas de Gortari. Debate Journal.
- Mexican Government (1971,). Ley Federal para prevenir y controlar la contaminación ambiental.
- Mexican Government (1986, February 14). Presidential decree of 1986 [Decreto por el que las Dependencias y Entidades de la Administración Pública Federal procederán en el ejercicio de las atribuciones de su competencia o en la realización de los programas y actividades a su cargo, a ejecutar ajustes o modificaciones conducentes a efecto de observar y dar pleno cumplimiento a las medidas previstas en este Ordenamiento].
- Mexican Government (1988). Ley General de Equilibrio Ecológico y Protección al Ambiente.
- Mexican Government (1992). ACUERDO por el que se crea la Comisión para la Prevención y Control de la Contaminación Ambiental en la Zona Metropolitana del Valle de México.
- Mexican Government (2009). Programa Especial de Cambio Climático 2009-2012.
- Mexican Government (2012). Ley General de Cambio Climático (LFCC).
- Mexican Government (2013) CONVENIO de Coordinación por el que se crea la Comisión Ambiental de la Megalópolis, que celebran la Secretaría de Medio Ambiente y Recursos Naturales, el Gobierno del Distrito Federal y los estados de Hidalgo, México, Morelos, Puebla y Tlaxcala [Coordination Agreement to create CAME].
- Mexican Government (2013). Convenio de Coordinación por el que se crea la Comisión Ambiental de la Megalópolis, que celebran la Secretaría de Medio Ambiente y Recursos Naturales, el Gobierno del Distrito Federal y los estados de Hidalgo, México, Morelos, Puebla y Tlaxcala [Coordination Agreement to create CAME]. Diario Oficial de la Federación. (2013, October 3).

- Mexican Government (2014). Ley Federal Sobre Metrología y Normalización. Diario Oficial de la Federación.
- Mexico City Government (CDMX) (2021). Una Política Energética Sustentable para la Ciudad de México 2019. Retrieved April 29, 2021 from <https://ciudadsolar.cdmx.gob.mx/programas/programa/una-politica-energetica-sustentable-para-la-ciudad-de-mexico-2019>
- Mexico City Government (CDMX) (2011). Ley de Mitigación y Adaptación al Cambio Climático y Desarrollo Sustentable para el D.F.
- Mexico City Government (CDMX) (2016). Inventario de Emisiones. Retrieved February 25, 2020, from <http://aire.cdmx.gob.mx/default.php?opc=%27ZKBhnmU=%27>
- Mexico City Government (CDMX) (2019). Histórico de contingencias ambientales de la Ciudad de México y la zona conurbada. Retrieved June 8, 2019, from <http://www.aire.cdmx.gob.mx/default.php?opc=%27YqBhnmU=%27>
- Mexico City Government (CDMX) (2019b) “Aviso por el que se da a conocer el Programa para Prevenir y Responder a Contingencias Ambientales Atmosféricas en la Ciudad de México.” *Gaceta Oficial de la Ciudad de México*. Vigésima Primera Época, Número 100 BIS.
- Mexico City Government (CDMX) (2021). Jefa de Gobierno de la Ciudad de México. Retrieved March 30, 2021 from <https://www.ciudadanos.cdmx.gob.mx/gobierno/jefa-de-gobierno>.
- Secretary of Environment and Natural Resources (SEMARNAT) (2014-2018). Proceedings from the National System of Climate Change. Mexico City.
- Secretary of Mobility of Mexico City (SEMOVI) (2021). Andrés Lajous. Retrieved on April 1st, 2021, from <https://www.semovi.cdmx.gob.mx/secretaria/estructura/1>
- Secretary of Social Development (SEDESOL) (1992). Compendio. Boletín Informativo de la Calidad del Aire octubre 1986- abril 1992. Mexico City.
- Secretary of the Environment of Mexico City (2012). *Calidad del Aire en la Ciudad de México. Informe 2011*. México.
- Secretary of the Environment of Mexico City (2018). *Inventario de Emisiones de la Ciudad de México 2016. Contaminantes criterio, tóxicos y compuestos de efecto invernadero*.

Mexico City.

Secretary of the Environment of Mexico City (SEDEMA) (1997). Annual Report on Air Quality. Mexico City.

Secretary of the Environment of Mexico City (SEDEMA) (2002). Programa de Protección Ambiental 2002-2006.

Secretary of the Environment of Mexico City (SEDEMA) (2018), Prepara CDMX reporte para el Registro Nacional de Emisiones 2018. Retrieved April 21, 2021 from <https://sedema.cdmx.gob.mx/comunicacion/nota/prepara-cdmx-reporte-para-el-registro-nacional-de-emisiones-2018>

Secretary of the Environment of Mexico City (SEDEMA) (2019). Air Quality Database. Retrieved October 17, 2019 from <http://www.aire.cdmx.gob.mx/default.php?opc=%27aqBjnmU=%27>

Secretary of the Environment of Mexico City (SEDEMA) (2021a). ¿Quién contamina el aire de la ZMVM?. Retrieved on November 4, 2021 from <http://www.aire.cdmx.gob.mx/default.php?opc=%27ZKBhnmI=%27#>

Secretary of the Environment of Mexico City (SEDEMA) (2021b). ¿Y la CDMX qué ha hecho para reducir los efectos del cambio climático? Retrieved 5 April, 2021 from <http://www.data.sedema.cdmx.gob.mx/cambioclimaticocdmx/cdmx.html>

Secretary of the Environment of Mexico City (SEDEMA) (various years). Annual Reports on Air Quality. Mexico City.

Sistema de Información Legislativa (SIL) (2021). Perfil del Legislador, Alejandro Encinas. Retrieved March 29, 2021 from http://sil.gobernacion.gob.mx/Librerias/pp_PerfilLegislador.php?Referencia=9218038

Suprema Corte de Justicia de la Nación [SCJN- Supreme Court of Justice]. (2015). Tesis: 2a./J. 125/2015 (10a.), Registro: 2010225. Semanario Judicial de la Federación, Décima Época, Segunda Sala, octubre de 2015.

Paris

Agence de la transition écologique (ADEME) (2002). Appel à projets. Actions Territoriales pour l'Environnement et l'Efficacité Énergétique. L'environnement : un atout pour les territoires.

Agence de la transition écologique (ADEME) (2005). Un plan climat à l'échelle de mon territoire.

Delanoë, B. (1996). Lutte contre la pollution : une analyse et des propositions pour un vrai changement. *Conférence de presse de Bertrand Delanoë au nom du Groupe Socialiste et Apparentés au Conseil de Paris*. Paris.

Direction Interdépartementale de l'Industrie d'Île de France (DII) (1980). La lutte contre la pollution de l'air dans Paris et sa banlieue. Paris.

French Government (1991). Décret n°91-1122 du 25 octobre 1991 relatif à la qualité de l'air et portant modification du décret n° 74-415 du 13 mai 1974 relatif au contrôle des émissions polluantes dans l'atmosphère et à certaines utilisations de l'énergie thermique.

French Government (1995). First National Communication under the UN Framework Convention on Climate Change. Retrieved February 5, 2021 from <https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-reports-annex-i-parties/national-communication-submissions/first-second-third-national-communications-annex-i>

French Government (1997). Second National Communication under the UN Framework Convention on Climate Change. Retrieved February 5, 2021 from <https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-reports-annex-i-parties/national-communication-submissions/first-second-third-national-communications-annex-i>

French Government (2000). Loi n° 2000-1208 du 13 décembre 2000 relative à la solidarité et au renouvellement urbains.

French Government (2000). Programme National de Lutte Contre le Changement Climatique.

French Government (2001). Third National Communication under the UN Framework Convention on Climate Change. Retrieved February 5, 2021 from <https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-reports-annex-i-parties/national-communication-submissions/first-second-third-national-communications-annex-i>

French Government (2004). Loi n° 2004-809 du 13 août 2004 relative aux libertés et responsabilités locales.

French Government (2006a). Fourth National Communication under the UN Framework Convention on Climate Change. Retrieved February 4, 2021 from <https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-reports-annex-i-parties/national-communication-submissions/fourth-national-communications-and-reports-demonstrating-progress>

French Government (2006b). Kyoto Protocol Progress Report. Retrieved February 4, 2021 from <https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-reports-annex-i-parties/national-communication-submissions/fourth-national-communications-and-reports-demonstrating-progress>

French Government (2009). Loi n° 2009-967 du 3 août 2009 de programmation relative à la mise en œuvre du Grenelle de l'environnement.

French Government (2010). LOI n° 2010-597 du 3 juin 2010 relative au Grand Paris

French Government (2010). Loi n° 2010-788 du 12 juillet 2010 portant engagement national pour l'environnement.

French Government (2011). Décret no 2011-678 du 16 juin 2011 relatif aux schémas régionaux du climat, de l'air et de l'énergie.

French Government (2014). Loi n° 2014-58 du 27 janvier 2014 de modernisation de l'action publique territoriale et d'affirmation des métropoles (MAPTAM).

French Government (2015). Loi n° 2015-991 du 7 août 2015 portant nouvelle organisation territoriale de la République (NOTRe).

French Government (2016, April 7). Arrêté du 7 avril 2016 relatif au déclenchement des procédures préfectorales en cas d'épisodes de pollution de l'air ambiant. Journal Officiel.

French Government (2016). Arrêté interpréfectoral relatif aux procédures d'information-recommandation et d'alerte du public en cas d'épisode de pollution en région d'Île-de-France.

French Government (2017). LOI n° 2017-257 du 28 février 2017 relative au statut de Paris et à l'aménagement métropolitain.

French Government (2021). Code de l'environnement.

French Government (2021). La Métropole du Grand Paris. Retrieved November 8, 2021 from <https://www.vie-publique.fr/fiches/20128-la-metropole-du-grand-paris>

French Government (2021). Panorama des émissions françaises de gaz à effet de serre. Retrieved on November 5, 2021 from <https://ree.developpement-durable.gouv.fr/themes/defis-environnementaux/changement-climatique/emissions-de-gaz-a-effet-de-serre/article/panorama-des-emissions-francaises-de-gaz-a-effet-de-serre>

Hidalgo, A. and J-P. Huchon (2015). Anne Hidalgo et Jean-Paul Huchon appellent à une action rapide et cordonnée pour réduire la pollution de l'air. Press Release. Ville de Paris and Île de France Region.

Inspection Générale de Paris (2017). Audit de l'Agence d'Écologie Urbaine. Mairie de Paris : Paris.

Metropolitan Council of Grand Paris (2018). Délibération CM2017/12/08/10, Compétence « Lutte contre la pollution de l'air » de la Métropole du Grand Paris.

Metropolitan Council of Grand Paris (2018). Délibération CM2018/02/02/13.

Ministry of Territorial Cohesion and the Relationships with Local Governments (2020). Compétences des collectivités locales. Retrieved on November 8, 2021 from <https://www.cohesion-territoires.gouv.fr/competences-des-collectivites-locales>

Mission régionale d'autorité environnementale Île-de-France (MRAE) (2018). Avis délibéré de la Mission régionale d'autorité environnementale d'Île-de-France sur le projet de plan climat-air-énergie territorial de la Métropole du Grand Paris (PCAEM) arrêté le 8 décembre 2017.

Paris Council (1995-2021). Débats et délibérations du Conseil. Retrieved from : <http://a06.apps.paris.fr/a06/jsp/site/Portal.jsp?page=search-solr>

Paris Data (2021). Les membres du Conseil de Paris depuis 1977. Retrieved on May 19, 2020 from <https://opendata.paris.fr/explore/dataset/les-conseillers-de-paris-de-1977-a-2014/information/>

- Pécresse, V; [vpecresse]. (2016, December 3) “Si le #picdepollution se poursuit le préfet doit envisager la circulation alternée et la Region assumera la gratuité des transports” [Tweet].
- Pécresse, V; [vpecresse]. (2016, December 7) “Je demande au Préfet de suspendre la #CirculationAlternée tant que la situation sur le réseau ferroviaire IDF n’est pas revenue à la normale” [Tweet].
- Pécresse, V. (2018). Communicate CR/PCT/DE/STEQABC/VC: Avis de la Région Île-de-France sur le projet de Plan Climat Air Energie de la Métropole du Grand Paris. Retrieved march 15, 2021 from https://www.metropolegrandparis.fr/sites/default/files/2019-01/PCAEM_Avis_du_Conseil_r%C3%A9gional_d%E2%80%99Ile-de-France.pdf
- Pécresse, V. and C. Jouanno (2016, December 5). Pollution de l'air en Île-de-France : pour une circulation alternée automatique dès que le niveau de pollution l'exige. Press release.
- Préfecture de Police (1990). Etudes de pollution atmosphérique à Paris et dans les départements périphériques en 1989. Paris
- Regional Council of Île de France (2013). Rapport de la commission d’enquête. Plan de déplacements urbains. Enquête publique du 15 avril au 18 mai 2013.
- Regional Council of Île de France (2016). Changeons d’air en Île-de-France : Plan régional pour la qualité de l’air (2016- 2021).
- Regional Council of Île de France (2016). Délibération N° CR 114-16 du 17 juin 2016
- Regional Council of Île de France (2016). Rapport pour le conseil régional Decembre 2016. Pour une Région plus économe et plus efficace : retrait d’associations sans intérêt direct pour les franciliens.
- Regional Council of Île de France (2018). Plan Régional Anti-Bouchons et pour changer la route.
- Regional Council of Île de France (IDF) (2011). Plan Régional pour le Climat d’Île de France.
- Royal, S. (2015, August 18). La Transition Énergétique pour la croissance verte. Conférence de presse de Ségolène Royal sur l’application de la loi de transition énergétique. Press release. Paris.

- Tribunal Administratif de Paris, Jugement N°1619463, 1620386, 1620420, 1620619, 1622047/4-2, February 28, 2018.
- Ville de Bobigny (2018). Bobigny dit NON à la ZFE ! Retrieved on June 12, 2020 from <http://www.bobigny.fr/vie-municipale-et-citoyenne/les-consultations-et-enquetes-publiques/zone-a-faible-emission-3175.html>
- Ville de Montrouge (2020). La Zone à faibles émissions (ZFE). 75% des Montrougiens sont favorables à la mise en place de la Zone à faibles émissions. Retrieved on June 12, 2020 from <https://www.ville-montrouge.fr/1253-la-zone-a-faibles-emissions-zfe-.htm>
- Ville de Paris (1967). Communication de M. le Préfet de Paris et de M. le Préfet de Police au Conseil de Paris sur la pollution atmosphérique dans l'agglomération parisienne.
- Ville de Paris (1992). Communication de M. le Maire de Paris sur la politique de l'environnement. Séance du 23 novembre 1992. Paris.
- Ville de Paris (1995). Communication au conseil de Paris concernant la pollution atmosphérique à Paris. Séance du 24 juillet 1995. Paris.
- Ville de Paris (2002). Plan des déplacements de Paris. Etat des lieux. Déplacements et transports.
- Ville de Paris (2006). Plan Local d'Urbanisme.
- Ville de Paris (2007). Plan Climat 2007.
- Ville de Paris (2012). Plan Climat 2012.
- Ville de Paris (2018). Plan Climat 2018.
- Ville de Paris. (2020). *Bilan des émissions de gaz à effet de serre de Paris*. Paris.
- Ville de Paris (2021). État de la qualité de l'air à Paris. Retrieved November 4, 2021 from <https://www.paris.fr/pages/etat-des-lieux-de-la-qualite-de-l-air-a-paris-7101>
- Ville de Saint-Maur-Des-Fossés (2016). Conseil Municipal Séance du 23 Juin 2016.
- Virlouvet, G. (2015). "Vingt ans de lutte contre le réchauffement climatique en France : bilan et perspectives des politiques publiques. Avis du Conseil économique, social et environnemental." *Journal Officiel de la République*.

Interviews

Mexico City

Interview 1 – Mid-level Public Officer, Office for policy integration, Federal Secretary of Environment and Natural Resources. April 24, 2018.

Interview 2 – High-level public officer, General Direction for Air Quality, Local Secretary of the Environment of Mexico City. April 24, 2018.

Interview 3 - High-level public officer, Megalopolitan Environmental Commission (CAME), April 25, 2018 and July 18, 2019.

Interview 4 – Climate Change officer, PRONATURA (NGO), April 25, 2018.

Interview 5 – Advisor to the General Director of the National Institute of Ecology and Climate Change, April, 26, 2018.

Interview 6 – Mid-level Public officer at the National Institute of Ecology and Climate Change, April 26, 2018.

Interview 7 – High-Level Officer at the General Direction for Planning and Policy Coordination Local Secretary of the Environment of Mexico City. April 26, 2018.

Interview 8 – Division head at the World Resources Institute Mexico and former High-level Public Officer at the Metropolitan Environmental Commission and the Megalopolitan Environmental Commission. April 27, 2018.

Interview 9 – High-level Public officer at the General Coordination of Climate Policy Evaluation of the National Institute of Ecology and Climate Change. May 8, 2018.

Interview 10 – Mid-Level Public officer from the Climate Division at the General Direction for Planning and Policy Coordination Local Secretary of the Environment of Mexico City. May 9, 2018.

Interview 11 – Mid-Level Public officer from the Policy Evaluation Division at the General Direction for Planning and Policy Coordination Local Secretary of the Environment of Mexico City. May 9, 2018.

Interview 12 – Top-level Public officer at the Under-secretary of Planning of the Federal Secretary of Environment and Natural Resources. July 10, 2018.

Interview 13 – High-level public officer at the Megalopolitan Environmental Commission and former Estado de México's high-level Public Officer at the Metropolitan Environmental Commission. July 10, 2018.

Interview 14 – Program officer at the World Resources Institute Mexico and former mid-level public officer at the Megalopolitan Environmental Commission. July 12, 2018.

Interview 15 – Division head at the World Resources Institute Mexico and former High-level Public Officer at the Megalopolitan Environmental Commission. July 12, 2018

Interview 16 – Program Officer at the World Resources Institute Mexico and former Estado de México's high-level Public Officer at the Metropolitan Environmental Commission. July 12, 2018.

Interview 17 – Program head of Climate Change at PRONATURA (NGO). July 12, 2018.

Interview 18 – Mid-level public officer at the Emission Inventories Division from the General Direction for Air Quality, Local Secretary of the Environment of Mexico City. July 13, 2018.

Interview 19 – Mid-level public officer at the Emission Inventories Division from the General Direction for Air Quality, Local Secretary of the Environment of Mexico City. July 13, 2018.

Interview 20 – Mid-level public officer at the Sustainable Transport and Mobile Sources Division. from the General Direction for Air Quality, Local Secretary of the Environment of Mexico City. July 13, 2018.

Interview 21 – Mid-Level Public officer from the Territorial Planning, Water Division at the General Direction for Planning and Policy Coordination Local Secretary of the Environment of Mexico City. July 17, 2018.

Interview 22 – Mid-Level Public officer from the Territorial Planning Division at the General Direction for Planning and Policy Coordination Local Secretary of the Environment of Mexico City. July 18, 2018.

Interview 23 – High-Level Public officer from the Territorial Planning Division at the General Direction for Planning and Policy Coordination Local Secretary of the Environment of Mexico City. July 17, 2018.

- Interview 24 – Sustainable Development Officer at the Entrepreneurial Environmental Council. July 31, 2018.
- Interview 25 – High Level Officer, Water Basin Coordination in Mexico City. National Water Commission. July 31, 2018.
- Interview 26 – Mid-level officer, Water Basin Coordination in Mexico City. National Water Commission. July 31, 2018.
- Interview 27 – Mid-level officer, Water Basin Coordination in Mexico City. National Water Commission. July 31, 2018.
- Interview 28 – Top-level Public Officer, General Direction of Federal Transportation, Secretary of Communications and Transports. August 1st, 2018.
- Interview 29 – High-level Public Officer, General Direction of Federal Transportation, Secretary of Communications and Transports. August 1st, 2018.
- Interview 30 – Program Officer, Air Quality, Mexican Center for Environmental Law (CEMDA). August 2, 2018
- Interview 31 – High-level public officer, General Direction of Air Quality of the Federal Secretary of Environment and Natural Resources. August 3, 2018.
- Interview 32 – Top-level public officer, Undersecretary for the Energetic Transition, Secretary of Energy. August 8, 2018.
- Interview 33 – Top-level officer of the Clean Air Institute and former high-level officer of the General Direction of Ecology in Mexico City. August 9, 2018.
- Interview 34 – Division head, Air Quality, Mexican Center for Environmental Law (CEMDA). August 10, 2018.
- Interview 35 – High-level officer at the General Direction for Air Quality. National Institute of Ecology and Climate Change and former top-level officer at the Secretary of Environment in Mexico City. August 10, 2018.
- Interview 36 – Mid-level public officer of Territorial Planning of the Federal Secretary of Environment and Natural Resources. August 13, 2018.
- Interview 37 – Division Head, Climate Initiative Mexico and former high-level officer at the National Water Commission. August 13, 2018.

Interview 38 – Director, Climate Initiative Mexico and former top-level officer at the National Institute of Ecology and the Federal Secretary of Environment and Natural Resources. August 13, 2018.

Interview 39 – Program Officer, Resilience Agency of Mexico City. August 13, 2018.

Interview 40 – Former Under-Secretary of Mobility. Secretary of Mobility of Mexico City. August 14, 2018.

Interview 41. High-level public officer, Water System of Mexico City. August 15, 2018.

Interview 42. High-level public officer at the Planning Direction of the BRT System “Metrobús”. September 4, 2018.

Interview 43. Mid-level public officer at the Planning Direction of the BRT System “Metrobús”. September 4, 2018.

Interview 44. Top-level officer, Urban Management Agency of Mexico City. September 5, 2018.

Interview 45. Top-level officer at the OECD Environment Direction and former top-level officer at the General Direction of Ecology in Mexico City and top-level officer at the Under-Secretary of Planning at the Federal Secretary of Environment and Natural Resources.

Paris

Interview 46 – High-level officer at the Regional and Interdepartmental Direction for Environment, Planning and Transport (DRIEE). April 26, 2019.

Interview 47 – General Delegate for Ecological Transition and Resilience of the City of Paris. May 8, 2019 and November 22, 2019.

Interview 48 – Advisor to the Deputy Mayor of Transport. City of Paris. May 15, 2019.

Interview 49 – Top-level officer for the Parisian Climate Agency. May 15, 2019.

Interview 50 – Top-level officer from the Regional Climate-Energy Agency of the Paris-Region Institute. May 16, 2019.

Interview 51 – Councilperson, office of the Deputy Mayor for the Environment. Paris Council. May 17, 2019.

- Interview 52 – High-level officer, Air Quality Division of the Agency of Urban Ecology. May 20, 2019.
- Interview 53 – Mid-level public officer, Climate Division of the Ministry for the Ecological Transition. May 23, 2019.
- Interview 54 – Mid-level public officer, Climate Division of the Ministry for the Ecological Transition. May 23, 2019.
- Interview 55 – Director for Île de France of France Nature Environnement (NGO). June 6, 2019.
- Interview 56 – High-level officer of the Environmental Division of the Île de France and Paris Prefect. June 12, 2019.
- Interview 57 – Top-Level Officer of the Territorial Cohesion Division of the Île de France Region. June 12, 2019.
- Interview 58 – Program officer, Air Quality Office of the Territorial Cohesion Division of the Île de France Region. June 19, 2019.
- Interview 59 – Head, Air Quality Office of the Territorial Cohesion Division of the Île de France Region. June 19, 2019.
- Interview 60 - Program Officer, Énergie Partagée Île de France (NGO). June 20, 2019.
- Interview 61 – High-level officer, Air Quality Division of the Ministry for the Ecological Transition. June 24, 2019.
- Interview 62 – Advisor to the General Director, AIRPARIF. July 2, 2019.
- Interview 63 – Deputy General Director for the regional office of the Agency of the Ecological Transition (ADEME).
- Interview 64 – Head, Climate-Energy Division at the Greater Paris Metropolis. July 26, 2019.
- Interview 65 – Program officer, Climate-Energy Division at the Greater Paris Metropolis. July 26, 2019.
- Interview 66 – Program officer, Air Quality Division at Plaine Commune (EPCI). September 2, 2019.
- Interview 67 – Councilperson and former Deputy Mayor of the Environment, Paris Council. September 5, 2019 and March 1st, 2021.

- Interview 68 – Top-level officer, Agency of Urban Ecology. September 6, 2019.
- Interview 69 – Public Officer, Air Quality Division, Department of Val de Marne. September 20, 2019.
- Interview 70 – Public Officer, Climate Division, Plaine Commune (EPCI). October 8, 2019.
- Interview 71 – High-level Public Officer, Environment division at the Police Prefecture. October 18, 2019.
- Interview 72- Mid-level Public Officer, Environment Division at the Police Prefecture. October 18, 2019.
- Interview 73 – Top-level Officer at the Île de France General Direction of Housing and Transport. October 22, 2019.
- Interview 74 – Mid-level public officer, Air Quality Division at the Regional and Interdepartmental Direction for Environment, Planning and Transport (DRIEE). October 24, 2019.
- Interview 75 – Former General Director, AIRPARIF. October 31, 2019.
- Interview 76 – Advisor to the Deputy Mayor of Education. November 21, 2019.
- Interview 77 – Public Officer, Delegation for Ecological Transition and Resilience of the City of Paris. November 22, 2019.
- Interview 78 – Mid-level public officer at the Climate plan Division, Agency of Urban Ecology. November 27, 2011.
- Interview 79 – Program officer at the Air-Climate Division, Department of Seine Saint Denis. November 28, 2019.
- Interview 80 – Officer in charge of pollution crisis management, Police Prefecture. November 29, 2019.
- Interview 81 – Program Officer, Climate Change Adaptation Division of the Agency of Urban Ecology. December 4, 2019.
- Interview 82 – Mid-level Officer, Regional and Interdepartmental Direction for Environment, Planning and Transport (DRIEE). December 12, 2019.

Interview 83 – High-level Officer, Climate, Energy and Vehicles, Regional and Interdepartmental Direction for Environment, Planning and Transport (DRIEE). December 12, 2019.

Interview 84 – High-level Officer, Climate Division, General Direction for Territorial Cohesion of Île de France. February 4, 2020.

Interview 85 – High-level Officer, Local Governments Delegation, EDF. February 20, 2020.

Affronter les émissions. Institutions, idées et stratégies dans les
processus de coordination des politiques publiques :
le cas des politiques publiques de la qualité de l'air et du changement climatique à
Mexico et à Paris

Résumé

L'élaboration des politiques dans les villes et le problème de la coordination

La qualité de l'air et le changement climatique ont fait sombrer les villes dans une crise environnementale urbaine. Tout comme elles en sont les principales victimes, les villes sont aussi les principales responsables du changement climatique. En tant que premier consommateur d'énergie au monde (78 % du total), les villes créent plus de 70 % des émissions mondiales de CO₂ et 60 % du total des gaz à effet de serre (GES) (PNUE, 2021 ; ONU 2021). Outre les gaz à effet de serre, l'urbanisation galopante a entraîné une augmentation des émissions de pollution atmosphérique dues au transport, à la production d'énergie et à l'industrialisation (Baklanov, Molina, & Gauss, 2016). Ses effets nocifs font de la pollution atmosphérique, selon l'Organisation mondiale de la santé (OMS), "le plus grand risque environnemental pour la santé, responsable d'environ un décès sur neuf chaque année" (WHO, 2016, p. 11).

Les processus d'élaboration des politiques publiques visant à faire face à ce type de problèmes environnementaux se déroulent dans des conditions propres à un domaine et à une ville, impliquant de multiples acteurs et institutions de différents secteurs et niveaux de gouvernement (Bulkeley, 2019; Castán Broto, 2017; Söderberg, 2016; Voß & Kemp, 2006; Zeemering, 2012). Ainsi, pour analyser l'élaboration des politiques publiques au niveau de la ville, les caractéristiques du problème environnemental saisies par la littérature du *policy studies* (complexité, politisation, stratégies de formulation et de mise en œuvre, instruments, mobilisation, transversalité) doivent être imbriquées dans les spécificités du contexte urbain : l'interrelation des agences gouvernementales, des niveaux de gouvernement, des institutions et des acteurs privés (société civile et entreprises par exemple) dans des domaines interdépendants (Le Galès, 2014; Pierre, 2000). Ces caractéristiques suggèrent que les politiques urbaines fonctionnent selon quatre dimensions : urbaine (ou interne), horizontale, verticale et internationale (Kaufmann, 2018; Kübler & Pagano, 2012). En ce sens, la politique environnementale urbaine comprend des dispositifs de gouvernance où de nombreux acteurs de différents secteurs à différents niveaux de gouvernement interagissent, ce qui soulève la question de la coordination.

Parfois considérée comme le " saint Graal de la réussite des politiques publiques " (Peters, 2015), la coordination est une question transversale, sous-jacente à toutes les formes d'action gouvernementale. Les recherches sur le sujet distinguent deux approches principales des processus de coordination. L'une est davantage liée à une division du travail due à la spécialisation et traite du problème de l'intégration d'agences ou d'organisations fragmentées

pour atteindre un objectif commun. L'autre traite des dépendances mutuelles des acteurs ou de la perception de la manière dont leurs actions s'influencent mutuellement.

Dans la première approche, la coordination est comprise comme un objectif technico-administratif qui sera atteint par des moyens institutionnels : lorsqu'ils traitent une question spécifique, chacun des acteurs spécialisés (organisations, niveaux de gouvernement, acteurs non publics) aura ses tâches bien définies établies par des lois, des contrats, des lignes directrices ou tout autre type d'institutions établies de manière formelle ou informelle (contrats, organisations ou une sorte de réseaux). Le rôle de ces institutions est de donner un certain ordre pour guider le comportement en définissant quelle partie d'un processus doit être prise par qui et ensuite, des actions coordonnées sont censées émerger.

Cette orientation ne reconnaît cependant pas les aspects relationnels et cognitifs de la coordination découlant de la dépendance des acteurs aux actions des autres pour atteindre un objectif. Les travaux de Charles Lindblom et la sociologie des organisations abordent cette question. Selon le premier, le problème de la coordination doit attirer l'attention sur l'ensemble des *dépendances mutuelles* qui sont présentes au cours du processus d'élaboration des politiques (Lindblom, 1965). Le fait que les acteurs soient mutuellement dépendants signifie qu'ils ont un certain degré d'influence en contribuant, en interférant ou en évitant d'interagir les uns avec les autres. Pour la sociologie des organisations, la coordination est également un enjeu relationnel produit d'interactions stratégiques et de facteurs cognitifs. Dans ce courant de pensée, les acteurs mutuellement dépendants, dont les actions et les décisions s'influencent mutuellement, sont interconnectés par des relations de pouvoir qui reposent sur une base d'échange de ressources (négociation) (Bergeron, 2018; Pinson, 2015). Ces relations de pouvoir tendent à se stabiliser ou à s'ajuster si elles sont réciproques et si, par le biais d'interactions stratégiques, elles sont en mesure de " relier des acteurs interdépendants à long terme dans la réalisation d'un objectif commun " (Bergeron, 2018, p. 68). Par conséquent, "le besoin de coordination est fonction du degré des modalités d'interdépendance existantes entre les parties d'un système inter ou intra organisationnel" (Duran & Lazega, 2015, p. 295).

Selon Duran & Lazega (2015) et Thoenig & Duran (1996) les mécanismes cognitifs sont essentiels pour comprendre la coordination. Dans les situations de dépendance mutuelle, les processus de coordination reposent sur la mesure dans laquelle les acteurs et les organisations réalisent si et comment leurs actions affectent les autres. En d'autres termes, les perceptions qu'ont les acteurs du type d'interdépendances concernant une affaire commune jouent un rôle important dans la coordination (Duran & Lazega, 2015). Ces perceptions, à leur tour, reposent

sur des cadres cognitifs construits collectivement qui représentent un point de référence pour les interactions (Thoenig & Duran, 1996). En résumé, pour la sociologie des organisations, les processus de coordination apparaissent comme une réponse aux dépendances mutuelles, qui sont à leur tour définies par les interactions et les perceptions stratégiques.

Par conséquent, au lieu de définir la coordination comme la dualité différenciation/intégration, il est plus logique de considérer les processus qui se déroulent dans le cadre de fragmentations et de dépendances mutuelles. C'est le paradoxe que les processus de coordination des politiques publiques tente de résoudre. Les gouvernements se spécialisent dans différentes fonctions et divisent la main-d'œuvre en organisations issues de nombreux secteurs et niveaux de gouvernement. Tout cela conduit à un ensemble de *fragmentations* horizontales et verticales. En même temps, tous les acteurs impliqués dans l'élaboration des politiques sont *mutuellement dépendants* car, dans chaque domaine, leurs actions sont orientées vers la solution d'un problème public, ce qui signifie la réalisation du grand objectif.

La coordination peut être considérée comme un processus et comme un état final. La coordination est considérée comme un processus *lorsque des acteurs de différentes sphères d'action, avec des compétences attribuées, interagissent en fonction de perceptions spécifiques de leurs dépendances mutuelles, s'engageant dans des échanges et des négociations sur les lignes d'action et les solutions aux problèmes publics*. D'autre part, la coordination en tant qu'état final sera la mesure dans laquelle les fragmentations sont intégrées dans le cadre d'une compréhension commune entre les acteurs sur la façon dont leurs actions affectent les autres. Le processus définissant si les acteurs travaillent ensemble ou non pour atteindre un objectif politique pourrait conduire à différents résultats : la coordination négative, ou l'accord tacite entre les acteurs selon lequel " ils ne nuiront pas aux programmes ou aux opérations des autres " (Bouckaert et al., 2010, p. 20) ; la coordination positive, lorsque les acteurs "renoncent à certains objectifs politiques et à certains de leurs moyens préférés pour atteindre ces objectifs afin d'obtenir une meilleure performance globale" (Bouckaert et al., 2010, p. 20); ou le conflit, lorsque les acteurs interfèrent délibérément à la réalisation des objectifs de chaque autre décideur (Lindblom, 1965, p. 22)

L'argument de la thèse

La thèse cherche à analyser les processus de coordination des politiques environnementales des arrangements de gouvernance dans les villes. Son étude part de la mise en relation des caractéristiques des arrangements de gouvernance avec la double nature de la coordination

(fragmentations et dépendances). L'argument principal est que les acteurs fragmentés et mutuellement dépendants des quatre dimensions de la gouvernance - urbaine, verticale, horizontale et internationale - s'engagent dans des interactions stratégiques au sein d'espaces institutionnalisés mais en évolution, avec leurs propres modèles d'interaction et cadres cognitifs (ou arrangements de gouvernance). Par conséquent, les *processus de coordination des politiques dans les villes se déroulent entre des acteurs ayant des compétences et des perceptions différentes de la manière dont leurs actions s'influencent mutuellement, qui interagissent stratégiquement dans le cadre de configurations institutionnelles et de références cognitives particulières*. Ces processus peuvent déboucher sur une coordination positive (ou une action conjointe délibérée), une coordination négative (ou une cohérence tacite) ou un conflit.

En raison des implications des fragmentations et des dépendances dans les dispositifs de gouvernance, la compréhension des processus de coordination des politiques dans la politique environnementale urbaine tient compte des aspects institutionnels, cognitifs et relationnels.

Les éléments structurels ou institutionnels font référence à la distribution formelle des compétences ainsi qu'aux règles informelles et aux modes d'interaction. Leur étude permet de dévoiler en premier lieu comment leurs attributions définissent certaines "règles du jeu", indiquant "qui peut faire quoi" et faisant finalement pencher la balance du pouvoir vers les acteurs qui détiennent des compétences sur certains aspects (Hall & Taylor, 1996; Mahoney & Thelen, 2010). De plus, les arrangements institutionnels peuvent verrouiller des modèles d'interaction institutionnalisés, structurant "certaines façons de faire les choses". Malgré les schémas d'interaction verrouillés résultant de processus dépendants du chemin (*path dependence*), les institutions changent, modifiant la distribution du pouvoir et ayant un impact sur les pratiques institutionnalisées. Cela peut se produire de deux façons, soit lorsque des crises majeures ou des chocs structurels perturbent les arrangements institutionnels, soit par le biais de transformations incrémentales et fragmentaires (Mahoney & Thelen, 2010; Streeck & Thelen, 2005; Thelen, 2004). Ce caractère dynamique des institutions implique que les arrangements de gouvernance sont structurellement contingents, façonnés par des facteurs institutionnels spécifiques au temps et à l'espace (Hyden, Court, & Mease, 2004) et restent rarement statiques. Si ces constructions comprennent des modèles institutionnalisés de dynamique sociale entre des acteurs ayant des compétences différentes, elles subissent également des transformations qui modifient ce que les acteurs peuvent faire à un moment donné, ce qui a un impact sur les interactions. Ces postulats impliquent que *la coordination est*

un processus dynamique, influencé par des pratiques considérées comme acquises, combinées à des changements modifiant la distribution du pouvoir, qui à leur tour influencent les stratégies des acteurs.

Sur la base des aspects cognitifs de l'action publique (Muller & Jobert, 1987 ; Muller, 2005, 2015; Hall, 1993), les *arrangements de gouvernance des politiques publiques environnementales* seront intégrés dans des référentiels ou des paradigmes qui encadrent les interactions à deux niveaux : une référentiel globale - ou générale - de l'action de l'État qui s'infiltré dans les aspects généraux de la politique publique à travers les secteurs ; et une référence ou un paradigme sectoriel, avec des idées spécifiques au secteur qui encadrent les objectifs politiques, les instruments et la nature du problème. Les référentiels globales et sectorielles ne définissent pas seulement des images du monde, mais aussi la façon dont les acteurs perçoivent ce que devrait être leur rôle. En suivant cette ligne de pensée, les modèles cognitifs influencent les processus de coordination, définissant la manière dont les acteurs abordent les fragmentations, et donc leurs perceptions mutuelles sur la manière dont leurs actions affectent les autres. En outre, les acteurs au sein des arrangements de gouvernance peuvent avoir leurs propres définitions concurrentes des problèmes, qui peuvent soit faire l'objet d'un accord par le biais de discours de coordination, soit rester conflictuelles, ce qui a pour effet d'éviter les interactions, voire de provoquer des interférences.

Sur la base des théories institutionnelles et cognitives examinées ci-dessus, la thèse développe quatre hypothèses :

Hypothèse 1 : Si les acteurs ont des préférences convergentes, leur utilisation des compétences et des ambiguïtés conduira à une coordination positive ou négative. Inversement, si les acteurs ont des préférences divergentes, leur utilisation des attributions et des ambiguïtés pour influencer le processus politique conduira à des conflits et à des interférences avec d'autres acteurs.

Hypothèse 2 : Les processus de coordination fonctionnent selon des modèles institutionnalisés prévisibles et des cadres cognitifs qui définissent leurs interactions et leurs approches des dépendances mutuelles.

Hypothèse 3 : Le changement institutionnel transforme la coordination des politiques en un processus dynamique.

Hypothèse 4 : Des définitions concurrentes du problème peuvent conduire à une coordination ou à un conflit.

La coordination des politiques devient un processus dynamique résultant de l'interaction entre (1) des *institutions* qui façonnent les arrangements de gouvernance en distribuant les compétences et en établissant des cadres d'action, (2) des *cadres cognitifs* et des *processus idéationnels* qui définissent les références, les paradigmes et les problèmes, et (3) les *interactions stratégiques* qui s'y déroulent. Ces trois éléments se combinent, entraînant une coordination positive, une coordination négative ou des conflits. Ces formations restent stables jusqu'à ce que des changements dans le contexte institutionnel, qu'ils soient brusques ou progressifs, réorganisent les interactions en modifiant les cadres d'action, ce qui entraîne des *séquences de coordination* différentes. Par conséquent, je soutiens qu'en raison de la nature changeante du contexte institutionnel, les processus de coordination sont séquentiels, plutôt que des interactions ponctuelles dues à l'interaction entre les facteurs susmentionnés.

Le mécanisme conduisant à différentes séquences de coordination est le suivant. Les interactions dans les dispositifs de gouvernance sont dépendantes du chemin et insérées dans des références cognitives ; les ajustements institutionnels et les processus d'auto-renforcement institutionnalisent les modèles d'interaction au fil du temps en internalisant un ensemble de valeurs, de significations, de pratiques et de systèmes de croyances. La combinaison de ces facteurs définit une *séquence de coordination*, dans laquelle les acteurs peuvent soit éviter d'interférer avec les activités des autres (coordination négative), soit mener des actions conjointes pour atteindre des objectifs spécifiques (coordination positive), soit s'engager dans des conflits, qui peuvent à leur tour entraîner des interférences ou des incohérences.

Cependant, la gouvernance dépend des différents moments, contextes et domaines des politiques publiques où se déroule l'action publique. Par conséquent, si le contexte institutionnel subit des changements, qu'ils soient abrupts (tels que des changements institutionnels à l'échelle du contexte, des changements de régime, des élections ou des crises) ou incrémentiels (changements institutionnels fragmentaires), nous pouvons nous attendre à des réajustements des arrangements, à une redéfinition des acteurs et à une redistribution de leurs compétences. En d'autres termes, les changements institutionnels et politiques reconfigurent les arrangements de gouvernance en modifiant la répartition du pouvoir et le type d'échanges et de négociations. La combinaison de ces changements avec les modèles institutionnalisés et les cadres cognitifs conduit à une autre séquence de coordination dans un deuxième temps (T_2).

Méthode, sélection des cas et collecte des données

Pour analyser comment les institutions, les idées et les interactions définissent la coordination des politiques publiques qui s'attaquent aux crises à l'origine de la tragédie environnementale urbaine, cette étude utilise une approche d'analyse historique comparative (AHC). La stratégie adoptée pour la comparaison est une sélection de cas les plus similaires, basée sur les éléments structurels de deux villes - Mexico et Paris - et de deux politiques, la qualité de l'air et le changement climatique, toutes deux liées mais indépendantes, visant à résoudre des problèmes similaires menant à la "tragédie environnementale urbaine", chacune avec des caractéristiques temporelles différentes (temps de présence et sentiment d'urgence). Le critère de la structure fait référence aux dispositions institutionnelles des deux villes : Mexico et Paris. Les deux ont connu des parcours de décentralisation similaires, avec des changements divers dans le contexte institutionnel et politique, mais restent différentes sur le nombre et le type d'interactions avec les autres niveaux de gouvernement. La dimension temporelle de la comparaison concerne les domaines des politiques. Les politiques publiques relatives à la qualité de l'air et au changement climatique sont similaires car toutes deux sont confrontées à des problèmes complexes et intersectoriels. Cependant, les deux présentent des variations dans la dimension temporelle, la première étant présente depuis beaucoup plus longtemps que la seconde et représentant différents types de crises. En raison de la nature structurelle et séquentielle des processus de coordination, le temps et la structure sont donc reconnus comme les deux éléments critiques pour la sélection des cas afin de développer l'argument de la thèse. Les preuves utilisées pour démontrer l'argument proviennent de différentes sources documentaires et numériques et de 85 entretiens semi-structurés.

La méthode de recherche a suivi trois étapes interdépendantes. Le premier objectif était d'identifier les acteurs publics et privés composant les arrangements de gouvernance pour chaque politique et leurs compétences. Cela permettrait d'identifier les acteurs, les règles du jeu et la distribution du pouvoir. Les étapes deux et trois n'étaient pas nécessairement séquentielles et impliquent un raisonnement inductif et déductif simultané. Une fois les modalités de gouvernance définies, l'objectif principal était d'identifier les effets des modèles institutionnalisés et des références cognitives sur les interactions, conduisant à une coordination ou un conflit positif/négatif.

Grâce aux entretiens, à l'analyse des médias (journaux, communiqués de presse, twitter, magazines) et à l'analyse des archives (documents plus anciens datant de périodes antérieures, tels que les premiers plans, les rapports, les réunions du conseil dans le cas de Paris ou les

procédures du Congrès à Mexico), il a été possible d'identifier certains modèles, références et discours clarifiant les positions des acteurs dans les deux problèmes (c'est-à-dire leurs définitions du problème) à travers le temps. A un certain moment, cependant, les sources ont révélé si certains changements contextuels ou progressifs ont affecté les interactions. Dans ce cas, il valait la peine de combiner un raisonnement inductif et déductif simultané ou, en d'autres termes, de "faire un pas en arrière et un pas en avant" pour expliquer les éléments conditionnant les interactions avant ces changements et, par conséquent, pour comprendre leur impact. Les changements, qu'ils soient brusques ou progressifs, peuvent non seulement montrer comment les interactions ont changé une fois qu'ils se sont produits, mais le fait de revenir en arrière a permis de soulever la question des éléments de ces changements qui étaient soit absents soit présents auparavant. Cela a permis (1) de construire une explication plus exhaustive des modèles institutionnalisés et des cadres cognitifs affectant les interactions, et (2) de déterminer dans quelle mesure les changements institutionnels et politiques ont modifié ces caractéristiques.

Principales conclusions

Les deux politiques étudiées ici visent toutes deux à s'attaquer à une tragédie environnementale urbaine caractérisée par des problèmes complexes de nature multi-niveaux et transversale, avec des compétences réparties entre différents secteurs et niveaux de gouvernement. En passant des "instantanés aux images animées" (Pierson, 2000b, p. 72), la thèse a montré que les arrangements qui suivent des modèles d'interaction institutionnalisés spécifiques et des cadres cognitifs qui déterminent un processus de coordination et un résultat particuliers (coordination positive/négative ou conflit), peuvent s'effondrer lorsque des changements surviennent, entraînant différents types d'interactions.

C'est le cas à Mexico (chapitre 4), où la coordination caractérisée par le commandement et le contrôle a pris fin avec les changements politiques intervenus au niveau de la ville en 1997 et a culminé avec la fin du régime du PRI. Cela a déclenché une coordination positive entre la ville de Mexico, l'Estado de México et le gouvernement fédéral, lorsque les trois acteurs ont ajusté les instruments de politiques publiques pour éviter les crises de pollution et éviter ses caractéristiques génératrices de blâme. Une fois de plus, des changements ont modifié les arrangements de gouvernance en 2012 quand l'un des partis principales est sortie de la coalition gouvernante (le Parti d'action nationale), qui a ensuite encouragé des actions visant à déstabiliser les dispositions, conduisant à un conflit. Dans le cas de Paris (chapitre 5), les changements politiques et institutionnels progressifs ont conduit à deux séquences

d'interaction, principalement déterminées par les interactions ville-région. Dans un premier temps, lorsque la même coalition (Socialistes-Verts) dirigeait les deux niveaux, ils ont partagé une approche similaire et ont même mené des initiatives conjointes, présentant des fronts communs face aux autres acteurs territoriaux. Une fois que les conditions politiques ont changé au niveau régional, le conflit a caractérisé les interactions entre les deux acteurs, conduisant à l'incohérence des politiques et aux fragmentations régionales. Les interactions avec les autres *collectivités* et l'État ont à peine changé en raison de schémas institutionnalisés.

Alors que la coordination de la politique de changement climatique dans les deux villes (chapitres 6 et 7) peut sembler plus statique en raison des interactions limitées depuis que la politique est entrée dans l'agenda local, cette conclusion n'a été rendue possible que par son examen continu à travers d'une analyse longitudinale des processus de coordination. Dans les deux cas, les changements institutionnels et les événements politiques ont renforcé l'état initial des choses. Par exemple, à Mexico, la politique de changement climatique était un moyen de différencier les politiques publiques locales des nationales. L'autonomie acquise après les réformes de 1996 s'est reflétée dans les différentes approches nationales et locales, créant un développement parallèle avec la ville avançant le gouvernement fédéral dans les mesures liées au climat. Les conflits politiques et les changements ultérieurs n'ont fait que creuser l'écart. Lorsqu'un arrangement institutionnel visant à coordonner l'action collective est arrivé, "il était trop tard" pour réconcilier les politiques nationales et locales affectées par d'autres facteurs (héritage des problèmes de qualité de l'air, capacités techniques avancées et cadrages différents des problèmes).

Les conditions n'étaient pas si différentes à Paris. En tant que "pionnière" de la politique climatique, la ville a devancé toutes les autres *collectivités* d'Île de France. Ayant des années d'avance sur la région, l'autorité métropolitaine et les autres municipalités et départements, la ville était dans une position avantageuse, sans aucun besoin de coopérer pour atteindre ses objectifs de réduction des gaz à effet de serre. Les changements politiques au niveau régional n'ont fait que creuser l'écart avec la ville en raison des différences partisans. En outre, l'introduction d'une nouvelle échelle métropolitaine a entraîné une certaine coordination des politiques de planification, principalement au niveau des objectifs généraux. Tout comme dans le cas de Mexico, des éléments tels que le cadrage du problème, le développement des capacités et les politiques partisans ont renforcé l'isolement de la ville dans l'élaboration de sa politique climatique (ces éléments sont examinés en détail ci-dessous). Malgré l'isolement des villes et l'orientation différente des niveaux supérieurs du gouvernement - liée à la transition

énergétique et à la réduction des GES comme une externalité positive plutôt qu'un objectif en soi -, dans les deux cas, le résultat des interactions plutôt limitées a été une coordination négative. Ceci est dû aux caractéristiques objectives du problème qui rendent la transition énergétique bénéfique pour les réductions de carbone. Les résultats sont résumés dans les sous-sections suivantes.

Institutions et cadres idéologiques verrouillant les interactions

Tout d'abord, il faut distinguer les modèles institutionnalisés et les cadres cognitifs identifiés qui guident les interactions. Chacun d'entre eux présente des caractéristiques spécifiques, qui agissent toutefois en conjonction avec les deux autres. Par exemple, la perception de la région comme la métropole légitime - un facteur cognitif - a été renforcée par les mandats de la région pour promouvoir la cohésion territoriale et son rôle de coordinateur (chef de file) - deux éléments institutionnels. De tels schémas institutionnalisés se produisent parallèlement aux changements institutionnels et politiques, agissant à la fois comme des catalyseurs ou des amplificateurs de l'action stratégique. Cela signifie que certains événements peuvent atténuer ou intensifier les schémas susmentionnés, et donc définir le degré de convergence ou de divergence des acteurs, conduisant (ou non) à la coordination. Ce faisant, ils orientent les interactions vers une séquence différente.

- *Pratiques définies par l'institution* : elles découlent du cadre institutionnel lui-même, étant celles auxquelles les interactions sont ancrées depuis longtemps. Elles affectent directement la position des acteurs vis-à-vis d'une question spécifique en raison de la distribution historique des compétences. Elles conduisent à des modèles institutionnalisés car elles reflètent plus qu'une simple distribution d'attributions à un moment donné. Il s'agit davantage du « taken for grantedness » du rôle formel de chaque acteur et de la manière dont il a utilisé ses compétences, ce qui n'est pas nécessairement apolitique. En d'autres termes, ces types de modèles institutionnalisés concernent la manière dont le pouvoir est distribué au fil du temps, la façon dont les acteurs l'exercent habituellement pour satisfaire leurs intérêts, et comment cela crée une "façon de faire les choses" particulière ancrée dans leurs compétences formelles. Leurs résultats sont des attentes prévisibles de ce que les acteurs peuvent faire avec leurs compétences. Concrètement, ce schéma peut être divisé en trois : les fragmentations fonctionnelles (le système général d'attributions dans le cadre duquel les interactions ont été historiquement définies), les mandats institutionnels (qui définissent les attributions mais ont une portée plus large, sont de nature transversale et sont

généralement plus abstraits) et les différences d'échelle (liées aux besoins territoriaux internes).

- *Cadres cognitifs* : ils ont affecté les interactions à deux niveaux, en définissant les cadres de référence, et les idées spécifiques au secteur définissant les objectifs politiques, les instruments et la nature du problème. En ce qui concerne le premier niveau, l'élément dominant était un *référentiel* de contrôle central imprégnant l'élaboration des politiques publiques de la ville. Les aspects cognitifs au niveau sectoriel façonnent la manière dont les acteurs abordent leurs dépendances mutuelles en définissant leurs perceptions sur la manière dont le problème doit être abordé, à quel niveau, et quel doit être leur rôle dans l'élaboration des politiques. Au sein de chaque paradigme, la convergence ou la divergence autour de ces aspects a un impact sur la coordination. Dans les cas étudiés ici, les perceptions ont été définies par la politique (politics) et le cadrage du problème.
- *Les changements institutionnels et politiques en tant que catalyseurs ou exhausteurs des modèles institutionnalisés et des cadres cognitifs* : Alors que certaines des pratiques institutionnalisées et des cadres cognitifs peuvent (ou non) conduire les acteurs à mener des actions conjointes, il existe des ruptures ou des cassures, qui apparaissent soit de manière incrémentale, soit comme des chocs externes qui ont la possibilité de transformer les relations. En effet, l'une des principales hypothèses de cette recherche est que certains événements, sous la forme de changements institutionnels et politiques, ont le potentiel de réorienter les interactions et de conduire à une séquence de coordination différente. En réalité, ces changements, plutôt que de transformer profondément les interactions, réorientent un chemin qui se poursuit sous des formes institutionnalisées d'interaction et de cadres cognitifs. En d'autres termes, les changements ont pour effet de renforcer ou de catalyser la coordination ou le conflit face aux modèles déjà institutionnalisés.

C'est aussi une question de temps

L'analyse longitudinale des processus de coordination dans deux domaines politiques a révélé le rôle de la dynamique temporelle. Cette recherche a montré que la variable temporelle doit être reconsidérée lorsqu'on s'intéresse à la coordination des politiques, non seulement en raison des facteurs contextuels qui influent sur la manière dont les interactions se déroulent, en définissant différentes périodes, mais aussi sur la manière dont le passé affecte le présent en quatre variantes : le moment (timing), la durée, le rythme et le passé.

Quand nous dit pourquoi : L'un des enseignements tirés des cas est la façon dont la concomitance de certains événements dans le contexte institutionnel plus large avec les développements politiques a verrouillé certaines des dynamiques d'interaction mentionnées ci-dessus. En d'autres termes, l'apparition parallèle d'événements contextuels (changements politiques ou institutionnels) et de processus spécifiques à un domaine a créé ou renforcé un chemin d'interaction particulier. Cet aspect a été principalement observé dans le cas du Mexique. Par exemple, l'insertion du problème de la pollution de l'air a eu lieu dans une période d'agitation politique, obligeant le régime à être plus attentif aux demandes sociales pour préserver sa légitimité.

Durée (pour combien de temps ?) : La durée de certains processus peut également influencer le déroulement des interactions. C'est le cas de la politique en matière de changement climatique, où les deux villes ont connu une déconnexion durable avec les autres niveaux de gouvernement, ce qui a rendu difficile le "retour en arrière" pour développer des actions communes. Depuis les changements politiques de 1997 et jusqu'en 2011, date à laquelle le gouvernement fédéral a promulgué la loi sur le climat, la ville de Mexico et le gouvernement fédéral n'ont eu pratiquement aucune interaction. Cette déconnexion de longue date a été difficile à inverser en raison d'aspects tels que le développement des capacités et les failles institutionnelles.

Le rythme (de l'urgence et de la vitesse) : Les politiques relatives à la qualité de l'air et au climat visent à s'attaquer aux problèmes à des rythmes différents. Alors que la pollution de l'air suscite un sentiment d'urgence en raison de ses effets immédiats et visibles, les conséquences des problèmes à évolution lente tels que le changement climatique ne sont pas (encore) aussi visibles. Cette caractéristique divergente affecte le type d'interventions et les interactions entre les acteurs impliqués.

D'inerties et d'héritages (ou de traîner le passé) : Cette hypothèse est double. Tout d'abord, les héritages politiques ou les anciennes politiques affectent les nouvelles, en portant certains éléments qui orientent les interactions. La qualité de l'air et le changement climatique sont liés, bien que relevant de domaines politiques différents. Cela signifie que, bien qu'ils aient des causes communes, le problème qu'ils tentent de résoudre est différent et que parfois, lors de la mise en œuvre de politiques visant à résoudre l'un d'entre eux, il est possible d'avoir des implications négatives ou des effets d'entraînement sur l'autre. Ces similitudes impliquent que l'expertise en matière, par exemple, de collecte de données pour les inventaires d'émissions, de planification ou d'établissement de réglementations sur les émissions peut être transférée ou

adaptée d'une politique de qualité de l'air "ancienne" à des mesures climatiques plus récentes. En second lieu, le fait de "traîner le passé" a des implications en matière de coordination lorsque des politiques qui ont transité par des changements politiques ou institutionnels sont comparées à des "politiques plus récentes". C'est ce que l'on appelle l'inertie des politiques (chapitres 4 et 5), ou la capacité d'une politique donnée à conserver certaines caractéristiques qui persistent à travers des changements institutionnels ou politiques majeurs. Les politiques plus anciennes connaissent normalement plus de ces changements ; par conséquent, les caractéristiques les plus institutionnalisées peuvent être traînées dans le temps, définissant les acteurs impliqués et le type d'interactions. Inversement, les politiques qui apparaissent une fois que des changements majeurs ont eu lieu n'auront pas beaucoup d'éléments à faire glisser. Tout au plus peuvent-elles "emprunter" certaines caractéristiques à d'autres politiques.

Limites et autres pistes de recherche

Cette thèse présente trois limites principales. Premièrement, le niveau d'analyse pose un problème pour l'étude des acteurs individuels. L'étude s'est concentrée sur un niveau méso en analysant les dynamiques d'interaction entre les niveaux de gouvernement, sans entrer dans le détail du rôle des individus. Les deux autres limites concernent les domaines politiques. Par exemple, la thèse a laissé de côté l'étude de la cohérence entre les politiques. Les critères de sélection de la qualité de l'air et du changement climatique répondaient à leur "urbanité" ainsi qu'à certaines caractéristiques de contrôle pour structurer la comparaison (voir l'introduction). Cependant, les mêmes similitudes et même la parenté des deux politiques pourraient bien conduire à analyser leur cohérence, comme l'étude de Philipp Trein sur le couplage et la coévolution des secteurs des soins de santé et de la santé publique (Trein, 2017a, 2017b). Enfin, la troisième limite concerne les généralisations à d'autres domaines politiques. Pour les besoins de cette recherche, il était important de sélectionner des cas où tous les acteurs ont des attributions et donc d'analyser leurs interactions pour voir si elles conduisent à une coordination. Il existe cependant d'autres domaines où la ville, le gouvernement national ou la région (dans le cas de la France) ont la prééminence sur les autres domaines. Dans ce cas, il serait pertinent d'explorer le pouvoir explicatif de ce cadre dans d'autres domaines politiques.

Pour conclure, je propose trois pistes de recherche basées sur les résultats de la thèse. Tout d'abord, il convient de noter la distinction entre les capacités politiques *de* coordination et les capacités politiques *affectant la* coordination. Les capacités politiques sont généralement définies comme des aptitudes à remplir des fonctions politiques et une condition nécessaire au succès des politiques (OECD, 2006; Wu, Ramesh, & Howlett, 2015). La coordination en tant

que compétence est la capacité des gouvernements à favoriser les liens entre les différents acteurs pour atteindre leurs objectifs. Cette capacité coexiste avec d'autres compétences analytiques, opérationnelles et politiques qui ne sont pas nécessairement compatibles entre elles (Howlett & Ramesh, 2014, 2016; Wu et al., 2015). L'analyse de la coordination des politiques en matière de changement climatique va dans ce sens. Comme mentionné précédemment, l'adoption prématurée des politiques climatiques a placé les deux villes dans une position technique plus avantageuse que leurs homologues territoriales, décourageant les dépendances mutuelles et entravant une coordination positive.

Deuxièmement, le changement climatique est considéré comme un problème méchant (*wicked*) *par excellence*. Selon la littérature spécialisée (Alford & Head, 2017; Head, 2019; Rittel & Webber, 1973) ces questions sont sujettes à des conflits entre tous les acteurs impliqués dont les intérêts divergents créent des désaccords sur la définition du problème et sa solution. Toutefois, par rapport à la qualité de l'air, la politique climatique présente moins d'interactions conflictuelles. Les objectifs généraux de réduction des GES et les mesures permettant de les atteindre ne se sont pas influencés mutuellement. L'une des principales critiques formulées par les acteurs interrogés à cet égard était qu'une telle focalisation sur les objectifs généraux, au lieu du processus, entravait une coordination positive. Or, il semble que ce soit également un facteur expliquant la (quasi) absence de conflit. Compte tenu de ces résultats, il pourrait être intéressant de réviser l'hypothèse largement acceptée sur la relation entre conflit et méchanceté (*wickedness*), ou du moins d'explorer plus systématiquement le type d'acteurs (publics et privés) entre lesquels les désaccords apparaissent.

Enfin, je soutiens qu'il faut se demander « coordination pourquoi faire ? ». La recherche de la coordination des politiques est souvent présentée comme une condition nécessaire à l'amélioration des interventions gouvernementales, voire comme le "Saint Graal" du succès des politiques (Peters, 2015a). Cependant, la voie à suivre pour atteindre un objectif spécifique par le biais d'actions coordonnées est déterminée par une construction spécifique d'indicateurs de succès. À Mexico, l'évitement du blâme était une motivation politique pour établir une conception spécifique du succès de la politique de la qualité de l'air : les acteurs ont aligné leurs actions pour atteindre un objectif d'évitement des préjudices de réputation (contrôle des pics de pollution), sans nécessairement améliorer les conditions de la population générale (liées à l'exposition à la pollution à long terme). La construction du succès d'une politique et sa réalisation collective peuvent impliquer des intérêts sous-jacents ou des agendas cachés qui ne vont pas nécessairement dans le sens d'une amélioration du bien-être général (McConnell,

2018). Alors que les compromis de la politique climatique n'étaient pas (encore) aussi inquiétants, le manque de coordination n'a pas entraîné de retombées négatives. Une coordination positive aurait-elle été souhaitable ? Sans aucun doute. Mais son absence ne semble pas avoir affecté les objectifs et la feuille de route pour les atteindre. En somme, l'accent mis sur les motifs de la coordination et sur le fait de savoir si la politique est significativement améliorée grâce à elle doit être plus systématiquement abordé avec une lentille non fonctionnaliste.