Cities' Engagement in Global Climate Change Politics

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Dedication

To my family, loved ones, and friends for their endless support, love, and encouragement.

Abstract

Traditionally, nation-states have been regarded as the primary actors in international relations, wielding political authority and sovereignty. However, cities are increasingly at the forefront of climate change initiatives, forming transnational partnerships to pursue collective environmental goals. This dissertation examines why some cities bypass nation-states to engage directly in global climate change efforts. It addresses three critical research questions: When and why do certain cities join specific Environmental Transnational Municipal Networks (ETMNs) to address climate change? Under what conditions do cities actively leverage ETMNs to combat climate change after making a commitment? How do nation-states respond to cities' involvement in international politics through ETMNs?

A key argument of this dissertation is that climate vulnerability alone does not drive cities to join ETMNs; instead, for cities, political orientation, geographic factors, and strategic incentives like global reputation play a more significant role. Furthermore, the timing of a city's decision to participate is shaped more by the persuasive efforts of influential actors and the strength of their networking efforts than by purely economic considerations. Once cities join ETMNs, the proactive leadership of dedicated public servants proves to be a decisive factor in sustaining engagement, ensuring continuity and progress despite systemic challenges. Methodologically, this dissertation employs a mixed-methods approach, integrating quantitative analysis of U.S. and South Korean cities with in-depth qualitative case studies of South Korean municipalities.

This research also contrasts nations' responses to municipal engagement in ETMNs, demonstrating through case studies of South Korea, the United States, Belgium, and Spain how governance structures shape cities' diplomatic autonomy. In federal systems like the United States and Belgium, cities are often empowered to pursue climate initiatives autonomously, while centralized states like South Korea impose more restrictive paradigms. For instance, South Korean cities face bureaucratic obstacles that highlight the tensions between local aspirations and the centralized authority of the state, whereas Belgian regions are equipped to represent local climate priorities independently, illustrating the enabling role of federal frameworks. Ultimately, this dissertation contributes to urban climate governance by identifying the conditions that enable or constrain cities within ETMNs and emphasizing the need for multilevel governance that fosters collaboration across local, national, and transnational platforms to address global climate challenges effectively.

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List of Abbreviations

ETMN: Environmental Transnational Municipal Network

ICLEI: International Council for Local Environmental Initiatives – Local Governments for Sustainability

GCoM: Global Covenant of Mayors for Climate & Energy

C40: C40 Cities Climate Leadership Group

MLG: Multi-Level Governance

Chapter 1 Introduction

1.1 Research Question

After the Trump administration withdrew the United States from the Paris Agreement on climate change in 2017, a group of U.S. cities chose to step in to fill this gap. The membership of the Climate Mayors Network grew by more than 300 cities, to 476, and more than 180 U.S. cities adopted climate adaptation agendas and goals. In 2020, 198 mayors sent a letter to Senate and House leaders, clamoring for immediate climate change actions. London Mayor Sadiq Khan, who was the chair of the C40 Cities Climate Leadership Group, proclaimed, “Cities are where the action is” (Khan, 2022).

In the face of the existential crisis posed by climate change, cities have emerged as major contributors to greenhouse gas emissions, yet they also have the potential to mitigate these emissions. Nation-states have demonstrated limited efficacy in implementing climate solutions. Conversely, local governments have become exemplary case studies, voluntarily engaging in activities such as reporting their achievements and joining transnational municipal networks. From a policy standpoint, local governments are a potential source of optimism in addressing the climate crisis. This study focuses on Environmental Transnational Municipal Networks (ETMNs) as pivotal entities that unite local governments and offer potential programs. These networks enable local governments to transition from mere national policy takers to global policymakers, escaping the confines of the subnational layer and entering the global arena.

Cities are both significant contributors to climate change and vulnerable to its effects. As such, they are on the frontlines of the fight against global climate change, creating transnational partnerships and international organizations to represent their collective interests at the global level. However, not all cities have actively committed to this global agenda. Some cities, such as Los Angeles, New York City, and Copenhagen, have approached global initiatives more aggressively than states, while others, including Manila and Osaka, have not. Although Osaka and Manila resemble Los Angeles or New York City in population size, they have not joined any of the five biggest representative transnational municipal networks addressing climate change, such as the C40 Cities Climate Leadership Group (C40) and the International Council for Local Environmental Initiatives (ICLEI).

In joining C40, Los Angeles has pledged to sharply curb its greenhouse gas emissions, aiming for a 45% reduction by 2025 and net zero by 2050, through measures ranging from decarbonizing the city's energy grid to promoting electric vehicles. Likewise, after experiencing extreme weather events in 2011 and 2012, respectively, New York City and Copenhagen joined forces in 2017 in an international, innovative collaboration to develop climate resiliency projects by sharing their successful climate solutions and learning from each other. For example, while New York City is learning from Copenhagen's experience with cloudburst management, Copenhagen is drawing on New York City's experience with coastal flooding. Without directly engaging with or working through nation-states, some cities have sought to achieve their own climate change policy goals. ***When and why do some cities join Environmental Transnational***

Municipal Networks (ETMNs) to address climate change? Under what conditions do cities actively utilize ETMNs to combat climate change after committing to such networks? How do nation-states respond to cities' engagement in international politics via ETMNs? Overall, why do some cities go international to address the climate crisis?

1.2 Argument

1.2.1 When and why do cities join ETMNs? Under what conditions do cities actively utilize ETMNs after joining?

I argue that it is not climate vulnerability that spurs cities to join ETMNs, but their ambitions to raise their global reputations and the political openness of their mayors that play the most significant roles in cities' decisions to join and effectively utilize these networks. While one might assume that the cities that are most vulnerable to the effects of climate change would be the first to engage with ETMNs, the data reveal otherwise. Climate vulnerability alone is not a reliable predictor of participation in these transnational networks (Rai 2020; Ali & Keil 2006; Grandi 2020). Instead, it is the combination of a mayor's desire for international recognition and a politically open environment that drives a city's participation and sustained engagement in these networks.

Mayors, as the central figures shaping the vision and direction of their cities, play a pivotal role in these decisions. For many mayors, the primary motivation to join an ETMN is not merely to address local climate vulnerabilities but rather to elevate their cities' reputations on the global stage. ETMNs offer a platform for cities to demonstrate

leadership, signaling to both local constituencies and international peers their commitment to climate action. This is particularly advantageous for cities striving to position themselves as hubs of sustainability and innovation, as participation in these networks enhances their global visibility and appeal. Mayors aware of the political and economic benefits of such recognition are more likely to champion involvement in ETMNs, viewing it not as a mere emergency response to environmental threats but as a strategic move to bolster their city's standing—and, by extension, exhibit their own effectiveness and leadership in governance.

Moreover, after a city joins an ETMN, the proactive leadership of dedicated public servants is a critical driver of the city's sustained engagement with it. While international recognition and branding are undoubtedly important in motivating municipalities to join such networks, I contend that the consistent and proactive efforts of civil servants often play a more transformative and enduring role in advancing the policy priorities of these networks. Proactive public servants not only address systemic barriers such as their typically short tenures and the compartmentalization of different administrative departments but also ensure that international recognition translates into meaningful and sustained action. Their dedication, expertise, and commitment enable them to transform the external validation and political will associated with joining such a network into concrete, enduring initiatives.

Economic motivations and direct climate vulnerability often play secondary roles in cities' decisions to join ETMNs. While sufficient financial capacity can be used to support a city's climate initiatives, the primary driving force behind joining and utilizing

ETMNs tends to be more reputational and political. Cities, particularly those led by ambitious and internationally-minded mayors, see participation in these networks as a strategic move that can bring both immediate and long-term benefits in terms of recognition and influence. In many cases, the desire to be seen as a global leader in sustainability outweighs the urgency of addressing local climate vulnerabilities, demonstrating that the pursuit of a stronger international profile is a key motivator.

1.2.2 How do nation-states respond to cities' paradiplomacy?

I argue that states' responses to cities' paradiplomacy are significantly influenced by the level of state centralization. Paradiplomacy refers to the diplomatic activities conducted by subnational entities, such as cities, which engage in international relations independently of their national governments. In highly centralized states, there is often resistance or indifference to paradiplomatic initiatives, as central governments view such actions as potentially disruptive to the coherent national authority over foreign policy. In contrast, federal states, where authority is distributed across multiple levels of government, are generally more accommodating of subnational diplomacy and may even encourage it if it aligns with national interests. This dynamic highlights the delicate balance between local autonomy and national sovereignty underpinning cities' international engagements, which reveals how governance structures shape these interactions.

For example, in the United States, the federal system and the constitutional support for states' rights allow cities substantial autonomy to engage in international

networks, especially on issues like climate change. The creation of the role of U.S. Special Representative for City and State Diplomacy exemplifies the federal government's support for subnational diplomacy, facilitating collaboration between cities, states, and the federal government. This approach illustrates a collaborative and decentralized model where local governments are recognized as important players advancing national goals. However, conflicts can arise when local policies diverge from federal priorities, creating challenges in terms of policy coherence.

Belgium's federal model also allows regions significant autonomy to engage in international matters, reflecting the country's commitment to regional representation in global governance. Constitutional provisions that grant regions the ability to lead on relevant international issues empower Belgian cities and regions to participate in cross-border initiatives and environmental governance networks. However, Belgium's multi-level system, which requires consensus among various governance levels, sometimes delays decision-making and complicates policy alignment, especially when divergent regional priorities emerge.

In contrast, centralized states like South Korea present a more restrictive model of paradiplomacy. South Korea's historical emphasis on centralized governance further restricts local paradiplomatic efforts. Decentralization reforms in the 1990s were intended to enhance local autonomy, but these changes focused on domestic governance rather than empowering cities to engage in international networks. South Korean cities such as Seoul and Suwon have independently sought to participate in networks like ICLEI, yet

they often face limited support and bureaucratic hurdles from the national government, reflecting the challenges centralized structures impose on local international action.

The varying degrees of central government support, oversight, and local autonomy in these cases offer insight into how paradiplomacy may be enhanced. Federal systems like those in the United States and Belgium show how shared sovereignty can empower cities while maintaining policy consistency. Centralized states may need to introduce more flexible frameworks that allow cities meaningful participation in global networks.

Finally, where central governments actively support paradiplomacy, cities have the potential to become agents of change, creating locally responsive solutions to global issues. This supportive relationship can transform cities from mere implementers of national strategies to active participants shaping them. However, as large cities take on these roles, smaller municipalities with fewer resources may struggle to engage in international networks, risking marginalization. Thus, national governments must balance their support across all municipalities to prevent disparities in influence and opportunity, fostering more equitable paradiplomatic engagement.

1.2.3 Why is this question important?

Until fairly recently, international relations scholars had paid little attention to the role played by cities. Traditionally, IR scholars have regarded states as the primary actors with political authority and sovereignty (Morgenthau 1973; Waltz 2018), paying less attention to the possibility that subnational units such as cities or local governments can

and do act independently on the global stage to shape foreign policy. Furthermore, while the IR literature has addressed non-state actors such as multinational corporations, religious organizations, and individuals, it has not considered cities as crucial players in the international sphere (Keck & Sikkink, 1999; Keohane 1998; Lin 2018). Typically, cities have been viewed as policy-takers rather than policymakers in hierarchies of domestic politics (Lin 2018; Schultze 2003). This tendency ignores the possibility of an agenda-setting role for cities in international politics.

While the role of cities has received little attention in international relations scholarship, in actual world affairs, cities have increasingly shown local leadership and the potential to exert their power when it comes to environmental policies on the global stage. For instance, at the 2015 United Nations Framework Convention on Climate Change (UNFCCC) 21st Conference of the Parties in Paris, city governments earned official participant status for the first time since 1991 when the agreement came into force (Hoffmann 2011). At this conference, delegates from more than 400 cities advocated for a variety of climate change actions at the city level, including using more renewable energy sources, establishing greener and more energy-efficient buildings, and increasing access to public transportation to reduce cars on the road.

Similarly, in 2023, the COP28 Local Climate Action Summit was a groundbreaking assembly designed to acknowledge the pivotal role played by local leaders in mitigating emissions, addressing climate-related risks, and accelerating national endeavors to advance swiftly and effectively in the realm of climate action. Hosted by the COP28 Presidency and Bloomberg Philanthropies, the Summit sought to

unite numerous national and subnational climate leaders with the goal of reshaping climate finance, amplifying global initiatives, expediting the transition to sustainable energy, and reinforcing resilience and adaptation efforts at the grassroots level. The Summit was supported by prominent networks of local leaders, including the C40 Cities Climate Leadership Group, the Global Covenant of Mayors for Climate & Energy, ICLEI – Local Governments for Sustainability, United Cities and Local Governments (UCLG), the U.S. Conference of Mayors, and the Under2 Coalition, among others.

1.2.4 Scope of the Dissertation

As of 2017, 202 ETMNs were operating globally (Acuto & Leffel 2021). These networks vary in scope, focus, and membership but share the common goal of facilitating urban responses to climate change. This study focuses on the three largest ETMNs: the C40 Cities Climate Leadership Group (C40), the International Council for Local Environmental Initiatives (ICLEI), and the Global Covenant of Mayors for Climate & Energy (GCoM). These networks were selected due to their significant impact, extensive membership, and well-established roles in shaping global urban climate policies (Lee & Van de Meene 2012; Kona et al. 2021; Yi et al. 2017). Their longevity and institutional capacity further set them apart from smaller or more specialized ETMNs, as they have played a central role in integrating cities into global climate negotiations, advocating for municipal leadership in sustainability, and securing financial and technical support for urban climate initiatives.

While focusing on the three largest ETMNs may introduce selection bias by overlooking smaller or regionally focused networks, this choice is justified by their outsized influence and the wealth of available data on their activities. Their prominence ensures a well-documented foundation for analyzing global trends in urban climate governance. Additionally, these networks provide a representative lens through which to examine the broader role of cities in transnational climate action, offering valuable insights into the mechanisms and effectiveness of municipal-led initiatives at the international level.

What do transnational municipal networks (TMNs) do? C40 plays a critical role encouraging cities to develop Climate Action Plans and participate in High-Impact Accelerators, such as the Race to Zero initiative. It offers numerous opportunities for capacity building through workshops, training sessions, and webinars, fostering knowledge sharing and collaboration among cities. While C40 does not provide direct funding or tangible "rewards" for high-performing cities, it connects them with potential funders and offers technical assistance when needed. Moreover, C40 does not impose sanctions on underperforming cities but instead encourages them to adopt and implement climate initiatives, creating a supportive and collaborative context for progress.

GCoM helps cities envision long-term goals and achievements, amplifies the visibility of signatory commitments and actions, and urges cities to communicate with their citizens through local media. It also provides step-by-step guidance, tools, materials, and a regional helpdesk. One interesting point is that it connects cities with national governments. GCoM consistently assesses cities' behaviors or targets in relation to those

of its national government. In terms of membership requirements, GCoM requires cities to set higher targets than their nationally determined contributions (NDC) under the Paris Agreement. Likewise, ICLEI builds connections across levels of government, including city-to-city, city-to-region, local-to-global and local-to-national. I discuss the functions or benefits these networks provide to cities in greater depth below.

ICLEI – Local Governments for Sustainability is a global network comprising over 2,500 local and regional governments across more than 125 countries, supported by 25 regional offices worldwide. It focuses on advancing sustainable urban development by promoting policies and initiatives aimed at low-emission, nature-based, equitable, resilient, and circular urban growth. The organization seeks to integrate sustainability into urban planning and governance, addressing the challenges of rapid urbanization, climate change, ecosystem degradation, and social inequities.

ICLEI engages cities, towns, and regions at various stages in their sustainability journey. While some members have been recognized for their ambitious sustainability goals and achievements, others are just beginning to incorporate sustainability into their local policies and practices. The organization provides tools, training, and resources to help local governments build the capacity needed to meet their sustainability objectives. Additionally, ICLEI works to connect local governments with regional, national, and global governance structures to ensure that local perspectives are represented in broader sustainability discussions.

Methodologically, this dissertation includes case studies of South Korea and the United States. Specifically, a three-month participant observation conducted at the ICLEI

Korea Office provided insight into the operations and challenges faced by cities in this network. This fieldwork was complemented by semi-structured interviews with a diverse range of stakeholders, including ICLEI Korea officers, climate activists, researchers, public servants, and representatives from non-governmental organizations. The qualitative data gathered from these interactions was crucial for understanding the motivations, challenges, and outcomes associated with city participation in ETMNs.

To conduct a comprehensive analysis of the factors influencing cities' commitments to ETMNs, I compiled datasets from both South Korea and the United States. The focus of this study is cities with populations exceeding 100,000 inhabitants, ensuring that the analysis captures the dynamics of urban centers with significant administrative and political capacity.

1.3 The Rise of Environmental Transnational Municipal Networks

Since the 1990s, there has been a marked proliferation of ETMNs designed to connect cities interested in engaging in various aspects of climate action, including both mitigation and, more recently, adaptation (Busby 2019; Shi et al. 2016; Acuto & Leffel 2021). Cities have sought to collaborate to address global climate challenges outside the traditional framework of the nation-state. The rise of ETMNs represents a significant shift in the global governance landscape, where subnational entities such as cities have begun to play a more active and visible role in international policymaking. This has been called paradiplomacy, referring to diplomatic activities conducted by subnational entities

engaging in international relations independently of or parallel to their national governments.

Following the work of Haupt and Coppola (2019), an ETMN can be characterized by five key criteria:

1. It is constituted by more than two member cities that span national boundaries, emphasizing the transnational nature of these networks.
2. Membership is voluntary, with cities free to join or leave the network as they see fit.
3. Member cities are directly responsible for implementing the decisions made by the network, ensuring that the actions are grounded in the local context of each city.
4. There is a degree of formalization and institutionalization of the network, which grants member cities specific rights and, potentially, obligations. This formal structure allows the network itself to gain agency, often through an established infrastructure that supports its activities.
5. The primary purpose of the network is to address climate change action or sustainability, distinguishing these networks from other types of transnational collaborations.

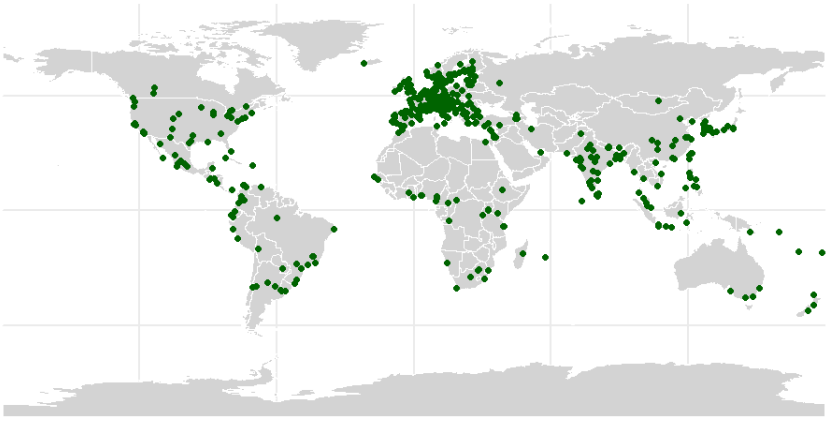

Figure 1.1: Cities that belong to at least one ETMN

The emergence and rapid expansion of these networks over the last several decades highlights an empirical trend toward transnational policymaking (Busby 2019; Slaughter 2005; Acuto & Leffel 2021). According to Acuto and Leffel's (2021) dataset, 500 cities across the world have joined at least one ETMN. Figure 1.1 maps the cities that belong to at least one ETMN.[1]

Unlike traditional international relations, which primarily involve interactions between nation-states, ETMNs provide a platform where subnational actors, including mayors, urban planners, and city councilors, can engage in global governance. Often, these actors work in partnership with private foundations, multinational corporations, governmental agencies, and non-governmental organizations (NGOs), collectively striving to influence global policy on a range of climate-related issues (Busby 2019; Bulkeley 2014; Hoffmann 2011).

[1] I used R to create this world map using Acuto and Leffel's (2021) dataset. Here, ETMNs represent all ETMNs, not just those examined in this dissertation.

The significance of ETMNs goes beyond merely connecting cities; they exemplify a broader trend of governance where traditional boundaries between local, national, and international levels are increasingly blurred. Cities actively engage in paradiplomacy across various sectors, including trade, technology, public health, and security. Major cities like New York City, London, and Shanghai establish international economic partnerships to attract foreign investment and boost trade. In the realm of technology, European and Chinese cities collaborate through organizations like the Diplomatic Council, leveraging modern innovations to enhance resource efficiency in megacities (Diplomatic Council, 2019).

During global health crises such as the COVID-19 pandemic, cities demonstrated their diplomatic agency by securing medical supplies through direct bilateral relations—Milan received masks from Wuhan, Bristol from Guangzhou, Madrid from Chongqing, while Yokohama and Shanghai exchanged aid at critical moments (Brookings, 2020). Beyond health, cities also cooperate on security initiatives to combat crime and terrorism, further asserting their role in shaping global policies. Through paradiplomacy, cities strengthen international cooperation and exert influence on global governance, often independent of national governments.

In this context, climate change serves as a crucial case study that illustrates the effects of this increased intermingling of governance levels and the shifting boundaries between nation-states and subnational actors (Busby 2019, Steinberg et al. 2012). As cities continue to face the immediate and localized impacts of climate change, their role in the global arena becomes ever more critical. ETMNs offer a unique avenue by which

cities can collaborate, share best practices, and collectively push for more ambitious climate action at the international level.

Several key lessons emerge from the growing role of cities in global governance through ETMNs and paradiplomacy. First, governance is no longer confined to national governments; cities are increasingly influential actors in shaping international policies. This demonstrates the importance of decentralized decision-making, where local governments can take initiative and address global challenges directly. Second, collaboration across borders—whether in trade, technology, public health, security, or climate action—proves that cities can effectively cooperate despite political differences at the national level. This reinforces the idea that subnational actors can drive meaningful change in ways that complement or even surpass national efforts.

Additionally, crises such as the COVID-19 pandemic and climate change highlight the necessity of agile, localized responses that transcend traditional diplomatic channels. Cities, by leveraging their networks and partnerships, can mobilize resources quickly and efficiently, demonstrating the value of proactive, city-led diplomacy. Finally, the integration of cities into global governance structures suggests that future policy frameworks should account for the role of subnational actors. Recognizing cities as key players in international relations can lead to more inclusive and effective strategies for tackling pressing global challenges.

1.3.1 Cities as Catalysts for Global Climate Action

According to C40, over 10,000 municipal climate initiatives are underway worldwide. Cities that have joined C40 have committed to climate initiatives such as Cities Race to Zero, the Net Zero Carbon Buildings Declaration, and the Advancing Towards Zero Waste Declaration. Given nation-states' diversity and their unwieldy size, it is often difficult for them to reach prompt agreements on the international stage. In contrast, cities, being more compact units, can more easily achieve consensus, establish goals, and take decisive actions through ETMNs.

To illustrate, the negotiation of the Kyoto Protocol by national governments engaged in the United Nations Framework Convention on Climate Change (UNFCCC) took a prolonged 13 years. In stark contrast, ICLEI managed to convene an inaugural city leaders' summit and launch a worldwide climate protection campaign in just 8 months, engaging over 1,000 local governments in the development of localized climate action plans.

Cities exhibit a greater capacity to respond effectively to policy demands and pressures from their residents compared with larger entities like states and federal governments. This can be attributed to the pressures on states and federal authorities to grapple with the heterogeneous preferences of larger and more spatially diverse populations. Cities, being more closely connected to their citizens, can concentrate on specific demands, while the relationship between state or federal entities and their constituents is less intimate.

Additionally, local governance structures allow mayors and other officials to better address and incorporate the diverse voices of the public into policies, ensuring responsiveness to the needs of the community. This responsiveness is further reinforced by electoral dynamics, as local officials seek re-election by aligning their actions with the demands of the people. Notably, cities can also efficiently undertake tasks that are distinct from those of nation-states, such as managing public transit and implementing environmentally friendly waste management systems.

1.3.2 What do we know about ETMNs?

The concept of multilevel governance (MLG) has been central to understanding ETMNs as a governance tool (Betsill & Bulkeley 2004). MLG emphasizes collaboration among various actors across different levels of government, particularly highlighting the diminished role of national governments, especially within the EU, in favor of shared decision-making. Scholars have argued that "the establishment of ETMNs has been facilitated by the multi-tier and multi-actor system of governance developed within the European Union" (Mocca 2019). Hooghe (2001) demonstrates that multiple actors and institutions operate simultaneously across various governance levels, including the state, subnational, and international levels.

Many scholars identify ICLEI as a typical example of an ETMN. Betsill and Bulkeley (2004) illustrate how local governments engage in transnational municipal networks like ICLEI, independently of their national governments, reshaping state activities without necessarily weakening them. Furthermore, Homsy (2015) argues that

local governments are more likely to adopt sustainability policies within a multilevel governance framework, as it effectively integrates local knowledge with broader global goals and standards.

Kern (2019) also notes that the EU's multilevel governance system disperses authority across various levels of governance and involves both public and private actors. This decentralization has increased local competencies, enabling policy actors to operate across multiple levels and adopt strategies like venue shopping, where transnational municipal networks leverage the EU's structure to access decision-makers and resources. In this way, ETMNs are seen as a product of the multilevel governance system that characterizes European policymaking, with MLG explaining the redistribution of authority and the involvement of various public and non-public actors in decision-making processes.

However, while the multilevel governance framework is widely applied to the study of ETMNs, it has its critics. Some argue that MLG lacks internal causal coherence when applied to ETMNs, as the approach is often tautological (Mocca 2018). The MLG framework treats the EU's multi-level structure as both a precondition for and a driver of subnational mobilization, which raises ambiguity as to whether local actors shape the EU's structure or if the EU's architecture explains their engagement. Additionally, the ahistorical, descriptive, and normative nature of MLG limits its capacity to analyze the political, economic, and institutional dynamics at each level—factors essential for understanding the growing importance of cities in the global political landscape.

Furthermore, the MLG framework tends to favor a top-down perspective, discouraging research into the interactions between different levels and actors. It also lacks a robust theoretical foundation or analytical tools that can be used to examine the specific factors that influence city participation in ETMNs. Despite its widespread application to the study of ETMNs, MLG's descriptive nature leaves unanswered important questions about the drivers of local authorities' engagement within the EU system.

Another key limitation of the MLG literature is its Eurocentric focus. Much of the research on TMNs has concentrated on experiences in the Global North, particularly Europe (Bulkeley et al. 2003; Hakelberg 2014; Giest & Howlett 2013). In contrast, the development of ETMNs in Asia, the primary focus of this dissertation, has not typically relied on the multilevel governance frameworks typically found in other regions (Bae et al. 2016; Lin 2018). Instead, Asian ETMNs frequently emerge as regional offices of networks originally based in Europe, underscoring the Eurocentric nature of MLG theory and raising questions about its applicability to non-European contexts.

Given the limitations of MLG theory as an explanation for the rise of ETMNs, this dissertation reconsiders this analytical framework and the definition of ETMNs, particularly in regions outside of Europe. The Eurocentric perspective centered on multilevel governance may not adequately capture the diverse dynamics and challenges faced by cities in regions like Asia and the Americas. Therefore, this dissertation aims to broaden the understanding of ETMNs by examining their development and impact in

different regional contexts, with a particular focus on the unique challenges and opportunities faced by cities in Asia and the Americas.

1.3.3 Contributions

Cities are no longer passive policy takers. Instead, they play crucial roles as policymakers and problem-solving units while coordinating with national and international actors in world politics (Acuto 2013). This reveals a gap between the state-centric approach in the scholarly literature and the real world, in which cities take initiative globally, forming organizations in international forums and making their own foreign policy. Climate change is a useful illustration of the conditions under which cities jump into global politics. This analysis also reveals the underlying mechanisms that lead to proactive policy decision-making meant to counteract the dismal and catastrophic effects of environmental problems. By examining substate actors, we can produce a more complete and vivid picture of world politics.

In a broader context, this project underscores the significance of a multilevel governance framework that incorporates the dynamics of both local and central governments in the realm of international politics. Looking beyond climate change, my aspiration is for this research to reveal how cities delineate their missions, engage with governmental bodies, and glean insights from each other. While cities take action locally, they have potential to produce global effects in areas such as human rights for the disabled and racial discrimination. The choice of climate change as the focal point for this analysis stems from its recognized status as a significant global challenge, analyzable

through data accumulated over the past three decades since it emerged as a topic of concern in the 1990s (Acuto et al. 2017).

1.4 Summary of Main Findings

My findings challenge the assumption that climate vulnerability is the primary driver of cities' membership in ETMNs. Instead, political orientation emerges as the dominant factor influencing engagement, with progressive governance playing a critical role in both the United States and South Korea, albeit with varying effects across different networks. In the U.S., democratic leadership significantly increases the likelihood of ICLEI and GCoM membership, whereas C40 membership appears to be driven more by economic and strategic considerations than ideological alignment. Similarly, in South Korea, left-leaning leadership strongly predicts ICLEI membership but has a weaker effect on GCoM participation, suggesting that governance structures and decentralization shape engagement patterns. Additionally, in the U.S., coastal location serves as a key predictor of membership, indicating that direct exposure to climate risks influences participation—but only when paired with political commitment or strategic incentives. These quantitative findings are detailed in Chapter 3. Furthermore, Chapter 4 highlights how ETMNs' persuasive efforts play a pivotal role in encouraging municipalities to join ICLEI.

Beyond political and geographic factors, institutional capacity and leadership continuity emerge as critical yet often overlooked determinants of sustained ETMN engagement. In South Korea, where frequent administrative turnover and rigid

bureaucratic structures hinder long-term participation, proactive civil servants play a crucial role in ensuring that ICLEI membership translates into tangible climate action. This suggests that ETMN effectiveness depends not only on external motivators such as funding and network participation but also on internal governance dynamics. These findings are explored in Chapter 5.

Additionally, Chapter 6 introduces two hypotheses regarding national-level responses. The Decentralization Hypothesis posits that greater decentralization enhances subnational actors' ability to engage in international environmental diplomacy. Meanwhile, the Legal Framework Hypothesis suggests that formalized legal structures improve coordination and effectiveness in paradiplomatic efforts. These insights underscore the need for targeted strategies that leverage political leadership, bureaucratic stability, and legal frameworks rather than assuming that climate risk alone will drive city participation in transnational sustainability initiatives.

The primary contribution of this dissertation lies in its empirical validation and refinement of existing theoretical explanations—particularly those related to political ideology or orientation—through the use of original datasets and a mixed-methods approach that combines quantitative and qualitative analyses. To the best of my knowledge, this is the first study to qualitatively examine the motivations and contextual conditions under which South Korean cities choose to become members of ICLEI. While the findings affirm the role of political ideology in influencing city-level decisions to join ETMNs, they challenge the assumption that climate vulnerability is a decisive factor. In

doing so, the dissertation helps to clarify which explanations most accurately account for membership decisions in ETMNs.

Moreover, this research highlights the pivotal role of central figures—such as mayors—in initiating ETMN membership, whereas the sustained implementation of network commitments over time appears to hinge on the presence of dedicated public servants. This distinction reflects the difference between the symbolic, often one-time nature of joining such networks and the ongoing, resource-intensive nature of delivering on those commitments. Finally, by drawing on illustrative case studies, the dissertation opens new avenues for theorizing the dynamics between central and local governments, offering a basis for generating new hypotheses about intergovernmental relationships in the context of global climate governance.

1.5 Structure

This dissertation is divided into two main parts: Part I addresses the conditions under which cities join ETMNs, while Part II focuses on the consequences of such membership.

Part I: When and why do states join ETMNs?

This section is divided into three chapters. Chapter 2 serves as the theoretical framework for Part I, providing a comprehensive discussion of the existing literature on the motivations driving cities to join ETMNs. It highlights testable hypotheses derived from the literature. This chapter sets the foundation by examining various theoretical

perspectives and synthesizing them into a coherent framework for understanding city behavior in the context of ETMNs.

Chapter 3 presents a quantitative analysis of the factors driving city membership in ETMNs. Building on the hypotheses outlined in Chapter 2, this chapter employs two original datasets focused on U.S. cities to test these propositions. In addition, it incorporates one additional original dataset on South Korean cities, enabling a comparative analysis across different national contexts. This dual approach provides a robust foundation for understanding the determinants of urban participation in ETMNs while highlighting regional variations and commonalities.

Chapter 4 offers a qualitative analysis of South Korean cities' reasons for joining ICLEI, which is based on semi-structured interviews and participant observation during an internship at the ICLEI Korea Office. The analysis provides insights into the socio-cultural and political contexts that influence cities' decisions to join ETMNs. By incorporating first-hand accounts and observations, this chapter highlights the complex motivations behind city participation in ETMNs.

Part II: The Consequences of Joining ETMNs

Part II is divided into three chapters. Chapter 5 begins by reviewing previous studies on the factors influencing the performance and achievements of ETMN member cities after they join such networks. The chapter's empirical focus is on South Korean cities, providing a comprehensive understanding of the strategies and outcomes associated with their ETMN participation.

Chapter 6 diverges slightly from the preceding chapters by focusing on the responses of central or national governments to the behaviors of cities in ETMNs. This chapter compares different types of government structures, particularly focusing on their degree of decentralization and the degree of legalization, to understand how national policies and frameworks influence city actions in the context of ETMNs. By examining a variety of governmental responses, this chapter sheds light on the interplay between local and national levels of governance in the realm of ETMNs.

Chapter 7 concludes the dissertation by summarizing its contributions and policy implications. This chapter synthesizes the findings from both parts of the dissertation, highlighting the key insights gained from the theoretical, quantitative, and qualitative analyses. It discusses the broader implications of the research for policymakers, practitioners, and scholars, and suggests avenues for future research. The conclusion underscores the significance of understanding the conditions and consequences of city participation in ETMNs, offering recommendations that can enhance the effectiveness of these networks at addressing global environmental challenges.

Part I

Why Cities Join ETMNs

Chapter 2 Theorizing the decision to join ETMNs

2.1 Introduction

For scholars of International Relations, climate diplomacy has traditionally been viewed as a process conducted by nation-states at large international conferences such as the Conference of the Parties (COP), the decision-making body of the United Nations Framework Convention on Climate Change (UNFCCC). These conferences bring together representatives from countries around the world to negotiate agreements, set global targets for reducing greenhouse gas emissions, and discuss strategies for mitigating the impacts of climate change. However, progress in these intergovernmental negotiations is often slow and incremental, reflecting the competing interests and priorities of different nation-states. In contrast, cities have demonstrated a capacity for more agile and innovative forms of climate diplomacy. This city-level diplomacy, often distinct from that of their parent nation-states, has become an important force in the global climate arena, offering new pathways to achieving meaningful climate action.

For instance, the City of Irvine in California pioneered an innovative approach to environmental regulation in 1989, driven by frustration with the slow pace of national climate action. Irvine passed an ordinance banning the use of ozone-depleting chemicals, setting a precedent that was considered the world's most stringent and far-reaching measure against such substances (Silvern 1989). This local initiative not only addressed a critical environmental issue but also sparked interest and imitation among other cities across the United States. Cities in various regions requested copies of Irvine’s ordinance and began adopting similar laws and regulations, showcasing the potential for municipal

leadership to drive broader environmental change (Dodson & Olmos 1989; Ward 1989). This example illustrates how local governments, when motivated, can act decisively and effectively, often outpacing national governments in their efforts to combat environmental degradation.

As subnational entities, cities are stepping into roles historically dominated by nation-states. Through transnational partnerships and participation in international organizations, they are addressing local and global environmental challenges while reshaping the policy landscape. The diverse levels of engagement among cities reflect a blend of local conditions and global imperatives, underscoring the complexity of urban climate action. By asserting their leadership in the global arena, cities are becoming indispensable players in creating a sustainable and resilient future for the planet.

I argue that it is not climate vulnerability that drives cities to join ETMNs, but rather their ambition to enhance their global reputation and the political openness of their mayors that play the most significant roles in these decisions. Cities do not necessarily view ETMN participation as a reactive measure to environmental threats; instead, it serves as a strategic tool for expanding their international presence and influence. Mayors who recognize the political and economic benefits of such affiliations are more likely to advocate for ETMN involvement, seeing it as an opportunity to elevate their city's status while simultaneously showcasing their own leadership, governance capabilities, and commitment to progressive global engagement.

2.2 Literature Review

2.2.1 Which cities join ETMNs?

Exploring the functions and roles of ETMNs, Busch (2015) identifies four primary roles that these networks typically fulfill: platform, consultant, commitment broker, and advocate. Each of these functions serves to facilitate a different aspect of the climate governance process at the municipal level. As platforms, ETMNs provide a space for members to exchange information, share experiences, and disseminate knowledge. As consultants, they offer guidance and technical assistance to cities to help them achieve their climate protection goals. As commitment brokers, they help cities commit to specific climate change policies and initiatives. Finally, as advocates, they represent the collective interests of their members at higher administrative levels, lobbying for policies and resources that support local climate action. This multifaceted approach enables cities to learn from each other, fostering the proliferation of innovative local climate governance practices that can be tailored to the specific needs and contexts of individual cities.

Among the four functions identified by Busch (2015), the platform function is particularly significant. It provides members with a space to exchange information and expertise, facilitating inter-municipal learning processes. This exchange is not limited to technical knowledge but also includes strategic insights and policy innovations that can be adapted and implemented across different urban contexts. One common activity associated with this platform function is place-branding, where cities and regions highlight their sustainability achievements to enhance their global profiles. Through these

networks, cities can communicate their climate policies to a broader audience, demonstrating their commitment to environmental sustainability and attracting international attention and recognition.

The platform function of ETMNs extends the scope of members' communication about their climate policies, primarily through inter-municipal learning processes. These networks often provide opportunities for cities to present their policies, promoting the spread of new and innovative local climate governance practices. By learning from other cities, local administrations can gain insights into what is possible and how to achieve ambitious goals, thereby expanding the range of available climate options for network members. However, it is important to note that the motivations for utilizing this platform function are not always purely altruistic. The line between genuine knowledge-sharing and place-branding activities can often be blurred, as cities may engage in these networks not only to share best practices but also to enhance their reputations and gain competitive advantages on the global stage (Busch 2015).

In examining the motivations for cities' participation in European transnational networks, scholars such as Huggins (2018) and Mocca (2018) have explored how cities seek to maximize economic, political, and formative incentives through their involvement in these networks. These incentives include opportunities for lobbying, learning, and raising their international profiles, which align with the broader functions and benefits provided by ETMNs. Mocca (2018), in particular, suggests an urban-focused analytical framework, or "urban approach," which prioritizes the urban level as the primary context in which economic, political, and institutional factors influence cities' decisions to join

ETMNs. This perspective emphasizes that while international phenomena like Europeanization and globalization have facilitated the creation of city networks, they alone cannot fully explain why cities choose to participate in them. Instead, the urban approach shifts the focus from the networks themselves to the specific urban contexts in which local governments operate, providing a clearer analysis of the factors that drive cities' actions and decisions within the global governance landscape.

Building on this urban approach, the scholarly discourse concerning environmental governance at the municipal level centers on the motivations propelling cities to adopt climate mitigation and adaptation policies. These motivations encompass a range of factors, including capacity, vulnerability, and ideological predispositions. Each of these factors plays a crucial role in shaping the decisions and actions of cities as they navigate the complex landscape of global climate governance.

(1) Climate Vulnerability

Climate vulnerability, or the fear of catastrophe, could in theory impel certain cities to engage in global environmental governance (Rai 2020; Grecksch & Klöck 2020). Cities that are highly vulnerable to the impacts of climate change, such as rising sea levels, extreme weather events, and other climate-related risks, may be more likely to participate in ETMNs as a means of enhancing their resilience and securing support for their climate adaptation efforts. The geographical location of a city plays a pivotal role in determining its vulnerability to climate change, with cities in coastal or low-lying areas facing particularly high risks (Grandi 2020). Cities' experience of extreme weather

events, predominantly attributable to climate change, such as wildfires, overheating, flooding, and sea-level rise, may heighten their awareness of the gravity of climate change (Rai 2020; Grecksch & Klöck 2020; Ali & Keil 2006; Grandi 2020).

(2) Capacity

A significant body of literature delves into cities' varied levels of resources and capacity, providing insights into why certain cities take proactive measures to address climate change (Krause 2013; Sharp et al. 2011; Yi et al. 2017; Hui et al. 2019). Capacity, in this context, encompasses tangible resources such as funding, leadership, and institutional structures, which enable cities to implement and sustain effective climate policies (Lesnikowski et al. 2021; Measham et al. 2011; Eisenack et al. 2014). Cities with substantial material capacity and consensus as to the value of climate action, such as New York City and Los Angeles, have both established and joined ETMNs and spearheaded climate action initiatives within these networks. In contrast, cities with lower levels of material capacity have exhibited less commitment to climate action initiatives, even when they join environmental TMNs. For example, Dhaka, despite being a member of the C40, has not committed to any of the C40's climate change declarations and has only engaged in one network focused on sustainable waste systems. Conversely, New York City has committed to four different declarations and has actively participated in 12 networks within the C40 framework. The greater a city's capacity, the more likely it is to actively pursue and implement climate change policies through ETMNs.

(3) Liberal Ideology

Liberal ideology has been shown to significantly increase cities' propensity to enact climate change policies (Rai 2020; Huber 2020; Switzer 2020). Switzer (2020) notably demonstrated that the ideological inclinations of residents exert a substantial impact on municipal water rate policies, particularly in the context of heightened water scarcity. In locales where residents are more liberal-leaning, the influence of water scarcity on policy outcomes is particularly pronounced. Furthermore, Rai (2020) has examined how communities grapple with the ramifications of climate change, noting that those with a liberal ideological orientation tend to prioritize initiatives aimed at climate change mitigation.

Additionally, Gokkir and Barkin (2019) found that U.S. states with more liberal electorates emit significantly less CO2 per capita than those with conservative electorates. Collectively, the literature suggests a strong correlation between liberal ideology and pro-environmental behaviors, with left-leaning cities more inclined to implement environmentally conscientious policies and practices (Dietz et al. 1998).

(4) City Branding

A strand of literature focuses on cities' desire to participate in ETMNs because they view these initiatives as consistent with their economic agendas, including economic growth, city branding, and attractiveness (Homsy, 2018; Pablo-Romero et al., 2015; Youm & Feiock, 2019). Local governments have incentives to pursue climate change actions to induce "young, educated potential immigrants and eco-conscious potential

tourists" through signaling that they are the right place to live and travel (Kelsey, 2021). Cities can position themselves globally by enhancing their attractiveness. The expected outcome is "a boost in their local development" because of the "city's enhanced inflow of foreign tourists, investments, talents, and students"(Grandi, 2020). In short, attracting newcomers and consumers in turn further increases cities' material resources.

Collectively, the literature suggests several motivations that may drive cities' climate actions. Capacity, economic benefits, and vulnerability constitute material factors propelling cities' engagement with global environmental politics. Ideology, as an ideational factor, may facilitate cities' involvement in transnational policy efforts, particularly with regard to climate change. However, remarkably little attention has been devoted to establishing the underlying mechanisms guiding cities' proactive policy decision-making, especially concerning involvement in ETMNs. A comprehensive understanding of the mechanisms of cities' engagement in global climate change politics requires not only the identification of their inherent attributes in the material and ideational realms, but also consideration of the social relations between cities and their external diplomatic activities, such as policy diffusion (Acuto 2013; Davidson & Gleeson 2015; Acuto & Rayner 2016).

2.2.2 Timing: When do cities join ETMNs?

The timing of a city's decision to join an ETMN is influenced by the interplay of environmental, economic, social, and political factors. Traditionally, environmental

vulnerability and economic capacity have been seen as the primary drivers of such a decision. However, recent studies in political science emphasize how persuasion and networking influence the timing of cities' decisions to engage with ETMNs. Specifically, the *timing* of such decisions often coincides with moments when influential actors—such as mayors, policymakers, or international organizations—effectively advocate for membership, leveraging their positions to highlight the urgency and benefits of joining.

Persuasion as a Catalyst for ETMN Participation

The persuasive efforts of political elites, international organizations, and cities that already participate in ETMNs are a key factor that can explain why and when new cities join these networks. Scholars like Betsill and Bulkeley (2004) argue that persuasion operates through normative and ideational channels, with cities deciding to join ETMNs based on the normative appeal of sustainability and climate leadership. Cities often engage in ETMNs not solely due to external pressures but also due to the appeal of aligning with progressive global norms, which are promoted through the persuasive efforts of international climate actors. This perspective is reinforced by research that highlights the role of ideational power in transnational governance. Such persuasive efforts frame climate action as a source of legitimacy for city governments, which helps shape the preferences and behaviors of local leaders.

Several studies point to the fact that mayors and local leaders are often persuaded to join ETMNs based on peer pressure from other cities, both domestic and international (Acuto, 2013). This type of persuasion is particularly effective when cities are already

involved in informal or formal networks with other cities, where knowledge-sharing and discussions about best practices take place. In these contexts, local leaders are more likely to view joining an ETMN as a pragmatic and politically beneficial move, as they are persuaded by the experiences and successes of other cities.

2.2.3 Hypotheses and Evidence to Test Hypotheses

Drawing from the literature, I outline the key hypotheses that guide this analysis.

H1: Cities that have higher climate risk (climate risk index, coastal cities) are more likely to join ETMNs.

H2: As the capacity (population size, fiscal autonomy, or climate readiness index) of a city increases, its propensity to join an ETMN also increases.

H3: Local governments led by center-left and left-wing parties are more likely to actively engage in ETMNs.

H4: Participation in ETMNs serves as a strategic branding tool, allowing cities to enhance their reputation as environmentally progressive and livable destinations.

H5: The likelihood of a city joining an ETMN increases when the city is exposed to the persuasive efforts of political elites and international organizations.

This section outlines the types of evidence that will be used to evaluate and test each hypothesis. It details the specific data sources, indicators, and analytical methods employed to assess the relationship between key variables and ETMN participation.

(1) Climate Vulnerability

H1: Cities that have higher climate risk (climate risk index, coastal cities) are more likely to join ETMNs.

Climate vulnerability influences ETMN participation and is measured through climate risk indices, population density, and coastal city status. In the U.S., the Notre Dame Global Adaptation Initiative (ND-GAIN) Climate Risk Index assesses vulnerability based on exposure, sensitivity, and adaptive capacity, with higher-risk cities more likely to join ETMNs. Population density indicates vulnerability, as denser cities face greater climate-related risks, while coastal cities are particularly exposed to flooding and storm surges, driving their engagement in transnational climate efforts. In South Korea, climate vulnerability is primarily measured by population density, as denser cities are more susceptible to climate impacts, encouraging ETMN participation.

Data showing a clear pattern in which high climate risk cities—those facing severe threats such as rising sea levels, extreme weather events, or resource scarcity—participate in ETMNs at a higher rate would support this hypothesis. For example, cities in coastal areas or regions prone to natural disasters might demonstrate a stronger tendency to engage in ETMNs as a way to access resources, knowledge, and international support to combat climate challenges. Furthermore, reports of these cities actively seeking collaboration through ETMNs to improve their climate resilience would strengthen this claim. Moreover, if interview respondents express the belief that cities join ETMNs due to heightened awareness of climate risks, it would reinforce the credibility of this hypothesis.

However, the hypothesis could be falsified if evidence shows that cities with lower climate vulnerability—those in more stable environments with fewer immediate climate risks—are participating in ETMNs at the same or higher rates than high-risk cities. If highly vulnerable cities are not disproportionately joining ETMNs or show no greater inclination to engage with these networks than their less vulnerable counterparts, it would suggest that climate vulnerability is not a significant driver of participation in these networks. Furthermore, if interview respondents state that cities join ETMNs regardless of their climate risk or vulnerability, it would further undermine the validity of this hypothesis.

(2) Capacity

H2: As the capacity (population size, fiscal autonomy, or climate readiness index) of a city increases, its propensity to join an ETMN also increases.

City capacity—defined by population size, economic resources, and climate readiness—is a key factor influencing ETMN participation. In the U.S., capacity is measured using total population and the Climate Readiness Index from ND-GAIN, which assesses economic, governance, and social readiness for climate adaptation. Economic readiness reflects a city's financial capacity, governance readiness highlights institutional and administrative support, and social readiness includes civic engagement and innovation capabilities. In South Korea, capacity is evaluated through total population, Gross Regional Domestic Product (GRDP), and fiscal autonomy, reflecting a city's

financial resources and budget flexibility. Larger, resource-rich cities are expected to have a stronger ability to engage in ETMNs.

Support for this hypothesis could come from case studies or quantitative data demonstrating a positive correlation between a city's financial resources, administrative infrastructure, or technical expertise and its participation in ETMNs. Cities with larger budgets, well-staffed environmental departments, and established governance structures for climate action are likely to join ETMNs at higher rates. Additionally, cities with strong expertise in sustainability or robust international partnerships may be more inclined to engage with these networks.

However, alternative explanations must also be considered. It is possible that cities with greater resources may feel less need to rely on ETMNs, while resource-poor cities may use these networks as a means to compensate for financial and technical limitations. If evidence shows that lower-capacity cities participate in ETMNs at similar or higher rates than resource-rich cities, it would challenge the assumption that capacity is a primary driver of ETMN membership. With this in mind, I examine whether higher capacity leads to greater ETMN participation or whether alternative dynamics emerge. Nonetheless, my primary hypothesis remains that greater resources increase the likelihood of ETMN membership.

(3) Ideology

H3: Local governments led by center-left and left-wing parties are more likely to actively engage in ETMNs.

Political ideology influences ETMN participation, with cities led by center-left or left-wing mayors more likely to join. This aligns with progressive ideologies prioritizing environmental sustainability and international cooperation. Mayoral political affiliation serves as a proxy for a city's overall political orientation, shaping its environmental policies and engagement in transnational networks.

Data showing a higher rate of participation and leadership in ETMNs among cities governed by left parties would support the hypothesis that left-leaning local governments are more likely to engage in ETMNs. Center-left and left-wing parties often prioritize environmental and sustainability issues, which could drive cities' commitments to international climate initiatives. If data show that cities governed by such parties are more active in ETMN activities, take on leadership roles within the networks, or implement more ambitious climate policies after joining, it would support this hypothesis.

Conversely, the hypothesis could be falsified if cities led by center-right or right-wing parties show equal or higher levels of engagement in ETMNs than left-led cities, demonstrating that political ideology does not significantly influence participation. If there is no discernible difference in ETMN involvement based on the political orientation of local governments, it would undermine the assumption that center-left or left-wing leadership is a key factor driving high engagement in these networks.

(4) City Branding

H4: Participation in ETMNs serves as a strategic branding tool, allowing cities to enhance their reputation as environmentally progressive and livable destinations.

If participation in ETMNs is truly about branding, we should see cities actively leveraging membership for marketing, increased global visibility, and economic gains without necessarily implementing substantive policies. If mayors and city officials publicly justify ETMN participation in terms of global recognition and economic benefits rather than direct environmental necessity, this would further support the idea that branding motivations play a key role.

To falsify this hypothesis, one would need evidence that ETMN membership does not significantly impact a city's global reputation, investment levels, or attractiveness to tourists and skilled workers. A lack of correlation between ETMN participation and economic gains, such as tourism revenue or increased foreign investment, would further weaken the hypothesis. Finally, if cities that face severe climate risks but have little interest in branding are just as likely to join ETMNs as globally ambitious cities, it would indicate that participation is driven more by necessity than by strategic image-making.

(5) Persuasion

H5: The likelihood of a city joining an ETMN increases when the city is exposed to the persuasive efforts of political elites and international organizations.

To support the hypothesis that the likelihood of a city joining an ETMN increases when the city is exposed to persuasive efforts from political elites and international

organizations, evidence could include case studies showing that cities that directly interact with international climate organizations, such as ICLEI or C40, or are encouraged by political elites, such as national leaders, influential mayors, or global climate advocates, are more likely to join ETMNs. Examples might include cities that joined an ETMN shortly after receiving an invitation or being targeted by the advocacy efforts of these actors, or instances where international organizations played a central role in providing resources or knowledge that persuaded city leaders to commit.

On the other hand, the hypothesis could be falsified if cities without significant exposure to these persuasive efforts join ETMNs at similar or higher rates than those that have been exposed to such efforts, suggesting that the persuasive efforts of political elites or international organizations is not a significant driver. If cities' decisions to join are based on internal factors or other motivations, independent of external persuasion, the hypothesis would be undermined.

One potential counterargument is that persuasion may not be the primary mechanism at play, as ETMN leaders strategically target cities that are already predisposed to joining. However, persuasion remains a necessary condition in the recruitment process. Even if networks first approach the most plausible candidates, the act of persuasion is what ultimately drives cities to commit.

Beyond direct persuasion, peer influence from other cities—both domestic and international—can serve as an alternative mechanism. ETMNs often rely on word-of-mouth and networking, with cities learning about these networks through nearby local governments or regional organizations. Cities may decide to join after witnessing the

benefits experienced by peers or after recognizing the growing number of participating municipalities worldwide. While international organizations may directly recruit cities, peer pressure offers a parallel route where local governments voluntarily seek out ETMNs based on the actions of their counterparts. This suggests that while persuasion is a key driver, peer dynamics could also play a crucial role in ETMN participation.

2.3 Conclusion

This study empirically tests the hypotheses derived from the existing literature. The forthcoming chapters delve into the intricate dynamics that govern cities' participation in ETMNs, offering a multifaceted analysis that integrates both quantitative and qualitative methodologies.

Chapter 3 serves as the cornerstone of this empirical investigation, focusing on hypotheses that suggest cities' decisions to engage with ETMNs are shaped by factors such as capacity, climate vulnerability, and liberal ideology. To test these hypotheses, the chapter employs advanced statistical techniques to analyze three original datasets, each designed to capture a wide range of variables crucial to understanding the dynamics of cities' engagement with ETMNs. These datasets reflect the diversity of urban contexts and cities' varying levels of participation, offering a robust empirical foundation for a comprehensive analysis of the factors driving their involvement in transnational municipal networks.

Chapter 3 Which Cities join ETMNs and When?

3.1 Introduction

This chapter undertakes a comprehensive analysis of three original datasets focused on cities in the United States and South Korea, with the goal of elucidating the complex array of factors that influence urban engagement with ETMNs. The datasets under examination are designed to serve distinct yet complementary analytical purposes, each contributing to a holistic understanding of how and why cities choose to participate in these global environmental networks.

The first and second datasets are cross-sectional compilations categorizing U.S. and South Korean cities by their memberships in three major ETMNs: ICLEI, GCoM, and C40. These datasets provide a snapshot of city memberships in these networks as of 2023, enabling comparative analysis across various cities. By identifying which cities are members of these networks and which are not, this cross-sectional perspective allows an exploration of key structural, political, and socio-economic characteristics that differentiate participating cities from those that have not engaged in these ETMNs, such as political leadership, socio-economic status, and environmental vulnerability.

The third dataset adopts a longitudinal approach, tracking a decade (2014–2024) of data from 109 U.S. cities that have either joined or chosen not to join GCoM. This longitudinal perspective reveals trends and patterns over time, offering insights into how cities' engagement with GCoM has evolved in response to various internal and external factors. The precise joining dates for GCoM member cities further allow for a detailed

analysis of the timing of membership decisions, including the impacts of specific events, policy changes, and leadership transitions on cities' choices to engage with the network.

Each dataset is self-compiled and includes a wide range of political, socio-economic, and environmental variables believed to influence city participation in ETMNs. These variables encompass the political ideology of mayors, coastal city status, population density, total population, climate risk, and climate readiness. Including these factors allows for a better understanding of the complex interactions between local political dynamics, economic conditions, and environmental considerations that drive cities' decisions to engage with ETMNs.

The analysis of the cross-sectional datasets will focus on identifying the common characteristics of cities that are members of ICLEI, GCoM, and C40, with the aim of uncovering the structural and political determinants of network engagement. This will include examining how factors such as mayoral ideology, economic capacity, and environmental vulnerability correlate with membership in these networks, providing insights into the types of cities that are more likely to participate in global environmental governance initiatives. For instance, the analysis might reveal whether cities with progressive political leadership are more inclined to join ETMNs, or whether coastal cities, due to their heightened vulnerability to climate change, are more likely to seek the support and resources offered by these networks.

The time-series cross-sectional dataset, on the other hand, enables a dynamic analysis of how cities' involvement with GCoM evolves over time. By tracking changes in membership status and analyzing the temporal relationships between various political,

economic, and environmental factors, this dataset offers a more detailed perspective on the processes and motivations that drive cities to join GCoM. This longitudinal analysis particularly reveals how cities respond to changing circumstances, such as shifts in political leadership, economic downturns, or the occurrence of extreme weather events, which may either prompt or hinder their participation in ETMNs.

Understanding these motivations is not merely an academic exercise; it has significant practical implications for policymakers, city officials, and researchers. By identifying the factors that drive cities to engage with ETMNs, this analysis can inform the design of effective strategies that enhance urban resilience and promote international collaboration on climate issues. For example, if the analysis reveals that cities with strong mayoral leadership are more likely to join ETMNs, this would suggest that empowering local leaders with the resources and support they need to champion climate initiatives could be a key strategy to increase urban participation in global environmental networks. Similarly, if the analysis shows that cities with high levels of climate risk are more inclined to join ETMNs, this would underscore the importance of targeting these cities with support and engagement efforts, as they are likely to benefit the most from the resources and collaborative opportunities offered by these networks.

3.1.1. Main Takeaways

To summarize main findings, political orientation is the strongest predictor of ICLEI membership in both the U.S. and South Korea, with Democratic-leaning cities in the U.S. and left-leaning cities in South Korea significantly more likely to join (42.8%

and 56.2% increase, respectively). For GCoM membership, political influence is strong in the U.S. (55.2%) but much weaker in South Korea (6.9%), suggesting other governance factors at play. Notably, C40 membership in the U.S. is negatively correlated with Democratic alignment (-5.19%), indicating that economic and strategic positioning, rather than ideology, shapes participation in this elite network. Coastal location strongly influences ETMN participation in the U.S., increasing the likelihood of GCoM membership by 25.97% and C40 membership by 4.6%, highlighting geographic vulnerability as a key factor.[2] In South Korea, while coastal effects are not explicitly measured, population density shows weak but notable effects, with a negative correlation with ICLEI membership and a slight positive effect on GCoM participation. Across both countries, population size, climate risk, and economic capacity do not significantly influence ETMN participation, suggesting that financial resources alone do not drive engagement.

These findings challenge the assumption that climate vulnerability is the primary driver of ETMN participation (Toly 2008; Lee 2013; Rai 2020; Grecksch & Klöck 2020; Ali & Keil 2006; Grandi 2020). Instead, progressive political orientation plays a dominant role in both the U.S. and South Korea, though coastal location is a significant factor in the U.S. While ICLEI and GCoM participation align with political ideology, C40 membership is shaped by economic and international branding considerations, differentiating it from other networks. This underscores the need to consider political and

[2] A coastal location is not strongly correlated with the presence of Democratic mayors. Table 3.3 indicates a correlation of 0.06 between the two variables, suggesting a weak relationship.

strategic incentives rather than assuming climate risk alone dictates cities' engagement in transnational climate governance.

This pattern of results tells us that the most important determinant of ETMN membership is political orientation. Across both the U.S. and South Korea, cities' participation in ICLEI and GCoM is strongly influenced by their ideological alignment, with progressive-leaning municipalities significantly more likely to join. While climate vulnerability and economic capacity are often assumed to drive engagement in transnational climate governance, the findings suggest that municipalities primarily use ETMNs as a way to signal political commitments and align with broader governance norms rather than as a direct response to local climate risks. The case of C40 further reinforces this, as its membership patterns in the U.S. indicate that economic and strategic positioning—rather than ideology—play a central role in elite network participation.

This finding is grounded in the theoretical framework of liberal institutionalism, with a particular emphasis on the role of domestic political factors in shaping cities' engagement in transnational climate governance. The empirical findings demonstrate that participation in ETMNs such as ICLEI, GCoM, and C40 is driven not by structural vulnerability or environmental exposure, but by the political orientation and strategic interests of municipalities. In both the United States and South Korea, progressive-leaning cities are significantly more likely to join ICLEI and GCoM, suggesting that local ideological alignment is a key determinant of network membership.

Liberal institutionalism offers a compelling explanation for this pattern by emphasizing how international institutions serve as platforms for actors to pursue policy

preferences, enhance credibility, and reduce uncertainty. Cities are rational actors that weigh the benefits of joining these networks—such as policy coordination, access to funding or knowledge-sharing platforms, and increased international visibility—against domestic political costs. The decision to participate in ETMNs is thus closely tied to local political agendas and leadership, especially in contexts where mayors or city councils use international engagement as a tool to advance their policy goals or demonstrate climate leadership.

The variation across networks further supports this institutionalist view. While ICLEI and GCoM membership is strongly correlated with political ideology, C40 membership reflects a different logic, one shaped by economic considerations and international positioning. Larger, more affluent cities with global aspirations are more likely to join C40, indicating that economic capacity and strategic branding play a larger role than ideology in this particular network. These differences underscore the importance of disaggregating ETMNs by institutional design and membership criteria when analyzing city participation.

Overall, this finding reinforces the view that cities engage in transnational environmental governance not as passive responders to external threats, but as politically motivated actors embedded within domestic political systems and operating within an international institutional environment that offers both constraints and opportunities. By highlighting the interaction between domestic political orientation and institutional incentives, the dissertation contributes to a growing body of scholarship that links subnational foreign policy behavior with liberal institutionalist theory.

The contrast between the U.S. and South Korean results underscore how national institutional frameworks shape the ways cities construct and express their international identities. U.S. cities, operating within a decentralized federal system, enjoy greater autonomy to act on their political identities through ETMN participation. In contrast, South Korean cities, embedded in a more centralized governance structure, demonstrate weaker political effects on network engagement, suggesting that their actions are mediated by national priorities or constraints. This contextual variation highlights how the meaning and function of ETMN participation are socially constructed within specific political contexts

The analysis thus far has established that political orientation is a major determinant of ETMN participation. However, several unresolved questions remain. Specifically, why is C40 membership negatively correlated with Democratic-leaning cities in the U.S.? If climate vulnerability is not the primary driver, what other governance factors influence ETMN engagement in South Korea? Additionally, Hypothesis 5, which concerns the persuasion process, is difficult to test using quantitative analysis alone. To address these gaps, qualitative analysis is necessary to examine local decision-making processes, the autonomy of municipal governments, and how cities establish relationships with transnational climate networks. These aspects will be further explored in Chapters 4 and 5.

3.2 Which cities join ETMNs?

3.2.1 Logistic Regression for a Cross-Sectional Analysis

To analyze the complex factors that influence U.S. and South Korean cities' decisions to join ETMNs, this study employs logistic regression of cross-sectional datasets. Logistic regression is well-suited for examining binary outcomes, such as whether a city has joined an ETMN, by estimating the likelihood of membership based on independent variables like climate vulnerability, urban capacity, and political ideology. This method assesses the relative influence of each factor and identifies significant predictors of ETMN participation, focusing on the static characteristics most strongly associated with a city's likelihood of engaging in transnational environmental governance.

The study examines data on 109 cities in the United States with populations over 100,000 and population densities over 1,500 people per square kilometer. These criteria ensure a focus on highly urbanized areas, where engagement with ETMNs is most evident and the availability of data allows for consistent analysis.

The first dataset captures U.S. cities' participation in three prominent ETMNs: ICLEI, GCoM, and C40. The second dataset captures South Korean cities' participation in the same networks.

Hypotheses

This study examines three hypotheses to analyze the factors that influence U.S. and South Korean cities' participation in ETMNs. The hypotheses explore the impact of city capacity, climate vulnerability, and political ideology. While the hypotheses address the

same themes across both datasets, the variables and their interpretations are adapted to each national context.

(1) Hypothesis 1: City Capacity

City capacity, measured through population size, economic resources, and climate readiness, is hypothesized to be a key determinant of ETMN participation. For U.S. cities, the total population and the Climate Readiness Index, developed by the Notre Dame Global Adaptation Initiative (ND-GAIN), are used to capture each city's capacity to support and attract investments in climate adaptation. The Climate Readiness Index integrates economic, governance, and social readiness, offering a comprehensive measure of a city's preparedness for climate action. Economic readiness reflects a city's financial capacity, governance readiness highlights institutional and administrative support for climate adaptation, and social readiness includes both civic engagement and a city's innovation capabilities.

In the South Korean context, city capacity is assessed using total population, Gross Regional Domestic Product (GRDP), and fiscal autonomy. These variables represent a city's resources and budgetary flexibility, which are crucial for participation in global environmental governance. Larger cities with more resources are presumed to have a greater ability to engage in ETMNs.

(2) Hypothesis 2: Climate Vulnerability

Climate vulnerability, measured through climate risk indices, population density, and coastal city status, is another potential driver of ETMN participation. For U.S. cities, the ND-GAIN Climate Risk Index evaluates vulnerability based on exposure, sensitivity, and adaptive capacity. Cities with higher risk scores are expected to seek ETMN membership to address their vulnerabilities. Population density serves as an indirect measure of climate vulnerability, as denser cities are more susceptible to climate-related impacts due to their concentrated infrastructure and populations. Coastal cities are also included, as they face heightened risks from flooding and storm surges that may make them more likely to pursue transnational environmental collaboration.

While more precise indicators such as elevation above sea level could better capture a city's vulnerability to climate risks like sea level rise, such data were difficult to obtain at the municipal level. Consequently, I used a simpler proxy—whether a city is located along the coast—to approximate climate vulnerability. Although a comprehensive climate vulnerability index would have been ideal, access to such data was limited and prohibitively costly. Given these constraints, coastal location served as a practical alternative. To address this limitation, future research could incorporate more refined climate risk metrics to complement or replace the coastal location variable and provide a more accurate assessment of local climate exposure.

In the South Korean dataset, climate vulnerability is assessed primarily through population density. As with U.S. cities, denser South Korean cities may face more severe impacts from climate events, driving their engagement with ETMNs. I did not include

coastal city status for South Korean cities because, unlike in the U.S., coastal cities in Korea do not experience the climate crisis as severely. This may be due to South Korea's smaller geographic size, which results in less variation between coastal and inland cities.

(3) Hypothesis 3: Political Ideology

For both U.S. and South Korean cities, cities led by mayors affiliated with center-left or left-wing political parties are expected to demonstrate higher participation rates in ETMNs. This reflects the association between progressive political ideologies and commitments to environmental sustainability and international cooperation. Mayoral political affiliation serves as a proxy for cities' overall political orientation, since local leadership shapes cities' environmental policy agenda.

Independent Variables

(1) U.S. Dataset

Table 3.1 offers an overview of the independent variables and their respective data sources in the U.S. dataset, showcasing the diverse range of data used in the analysis. This includes publicly available demographic information and specialized indices from research institutions.

Table 3.1: Independent Variables and Data Sources

Variable	Description	Data Source
Density	City's population density	Simple Maps
Population	Natural log of the city's population	Simple Maps
Coastal	Whether the city is located in a coastal area	Google Search
Democratic	Whether a city's mayor belongs to the Democratic Party	Government sites
Risk	A city's vulnerability to climate change. Risk incorporates exposure, sensitivity, and adaptive capacity	ND-GAIN
Readiness	Climate Readiness is a function of economic, governance, and social readiness	ND-GAIN

The variables used in the U.S. dataset capture a wide range of factors that may influence a city's decision to engage with ETMNs. These include:

***Density*:** This variable measures the concentration of people within a city, which can influence urban planning, resource allocation, and the implementation of sustainability efforts. Cities with higher population densities may face greater environmental pressures and thus have a stronger incentive to participate in ETMNs to address these challenges. The data for this variable was sourced from the Simple Maps World City Database,[3] which is based on data from the Center for International Earth Science Information Network at Columbia University in partnership with NASA's Socioeconomic Data and Applications Center.

[3] https://simplemaps.com/data/world-cities

Population: This variable represents the natural log of city size, which often correlates with resource availability, administrative capacity, and the ability to implement large-scale environmental initiatives. Larger cities may have more resources at their disposal to engage in transnational environmental governance. The data for this variable was also sourced from the Simple Maps World City Database, which is based on data from the U.S. Census Bureau and the U.S. Geological Survey.

Coastal City: This variable indicates whether a city is located on the coast, which can significantly impact its vulnerability to climate change effects such as sea level rise and hurricanes. Coastal cities may face greater risks and therefore have a stronger incentive to engage in ETMNs to access resources and support to enhance their climate resilience. To determine a city's coastal status, I used Google Maps as a reference. While more precise measures—such as elevation data—could offer a more accurate assessment of climate vulnerability, such data were not readily accessible or feasible to collect for all cases. As a result, coastal location was used as a practical proxy for climate exposure in this study.

Democratic Leadership: This variable captures the political orientation of city leadership, which may influence the likelihood of a city participating in ETMNs. Cities led by mayors affiliated with progressive or environmentally focused political parties are more likely to prioritize sustainability initiatives and international collaboration on climate issues. To measure this, I assigned a value of 1 if a mayor belongs to the Democratic Party, and 0 otherwise. Mayors from the Republican Party, Independents, or those with no party affiliation were coded as 0. To identify the political affiliation of the mayor of each city, I used a combination of official government websites and

supplementary Google searches. For example, I searched for “mayor of Alexandria VA,” which led me to sources like Google, news articles, and official government websites confirming that the mayor is Justin Wilson. I then searched “Justin Wilson party affiliation” on Google, and sources such as his official website, Google search results, mayors’ websites and local news indicated that he is affiliated with the Democratic Party.

***Risk*:** This variable assesses a city's exposure to climate-related hazards, which may drive its motivation to join ETMNs as a means of enhancing its resilience and securing support for adaptation strategies. Cities at higher risk of climate impacts may be more proactive in seeking international partnerships to mitigate these risks. Climate risk data were obtained from ND-GAIN.

Readiness: Climate readiness evaluates a city's preparedness for climate impacts, and encompasses economic, governance, and social dimensions. Cities that are well-prepared for climate challenges may be more inclined to join ETMNs to further bolster their resilience and share their strategies with other cities. Climate readiness data were obtained from ND-GAIN.

Descriptive statistics are summarized in Table 3.2. To further ensure the robustness of the analysis, a correlation matrix is presented in Table 3.3. This matrix examines the relationships among the independent variables, identifying potential issues of multicollinearity that could affect the validity of the regression models. By analyzing the correlation matrix, we can avoid including redundant variables in the same model, thus enhancing the accuracy and reliability of the findings.

Table 3.2: Descriptive Statistics for U.S. Cities

Variable	Min	Median	Mean	Max	Count	Year
Density	1500	2229	2782	107868	109	2023
Population	103330	198735	433413	8736047	109	2023
Coastal	0	0	0.29	1	109	NA
Democratic	0	1	0.54	1	109	2023
Risk	27.09	51.50	52.09	79.64	109	2016
Readiness	16.48	43.22	45.49	84.63	109	2016

Table 3.3: Correlation Matrix

	Readiness	Democratic	Population	Density	Risk	Coastal
Readiness	1.00	0.30	0.03	0.16	-0.29	-0.01
Democratic	0.30	1.00	0.16	0.27	0.25	0.06
Population	0.03	0.16	1.00	0.59	0.15	-0.04
Density	0.16	0.27	0.59	1.00	0.52	0.07
Risk	-0.29	0.25	0.15	0.52	1.00	0.19
Coastal	-0.01	0.06	-0.04	0.078	0.19	1.00

(2) South Korean Dataset

The variables in the South Korean dataset differ from those in the U.S. dataset. The list of independent variables is as follows:

Population: This variable represents the natural log of a city's population size, with data sourced from the Simple Maps World Cities Database.

Political Ideology: This variable reflects the political orientation of a city's mayor based on their affiliated political party. It is coded 1 if the mayor belongs to the Democratic

Party of Korea, and 0 otherwise (e.g., for the People's Power Party, Independent, or no party affiliation). To identify a mayor's party affiliation, I conducted searches on the Korean website naver.com, often supplementing these with Wikipedia, which frequently provides the most detailed and reliable data on party affiliations. For example, I searched "Soonchang mayor" on Naver.com, which identified Hwang Sookju as the mayor. A subsequent search revealed news articles indicating that he is affiliated with the Democratic Party of Korea.

Population Density: This variable measures the population per square kilometer for the year 2020, with data sourced from the Simple Maps World Cities Database.

GRDP: Gross Regional Domestic Product (GRDP), measured in millions of KRW, is sourced from the Income Statistics Division of the Bureau of Economic Statistics in Statistics Korea.

Fiscal Autonomy: This variable represents the percentage of locally derived revenue in the total annual revenue of the local government for the year 2020. The data were obtained from Local Finance 365, the Local Financial Integration Disclosure System.

Table 3.4 presents descriptive statistics on all independent and control variables with their explanations. Table 3.5 shows the correlation between variables.

Table 3.4: Descriptive Statistics for South Korean Cities

Variable	Description	Mean (Standard Deviation)	Year
Population	Natural log of the city's population	640,971	2023
Political ideology	Whether the mayor or governor's political affiliation is liberal, conservative, or independent	Liberal: 0.35 (0.48)	2018–2022
Population density	Population per square km	4,149.75 (5,991.77)	2020
GRDP	Gross regional domestic product (in millions of KRW)	18,759,190 (49,805,395)	2019
Fiscal autonomy	% of locally derived revenue in the total annual local government revenue	19.92 (11.80)	2020

Table 3.5: Correlation Matrix[4]

Variable	Population	Density	GRDP	Ideology	Autonomy
Population	1.00	-0.11	0.97	-0.12	0.56
Density	-0.11	1.00	-0.08	0.12	-0.14
GRDP	0.97	-0.18	1.00	-0.15	0.60
Ideology	-0.12	0.12	-0.15	1.00	-0.26
Autonomy	0.56	-0.14	0.60	-0.26	1.00

Dependent Variable

[4] GRDP and population exhibit a very high correlation (r = 0.96), suggesting that they capture overlapping aspects of city size and economic activity. Including both variables in the same model risks introducing multicollinearity, which can inflate standard errors and obscure the interpretation of individual effects. To mitigate this issue, I explored alternative model specifications and chose to include only one of the two variables at a time to avoid redundancy while still capturing economic capacity. Specifically, only population is included in Models 1 and 2 to represent city scale in a more parsimonious way.

In the first and second datasets, the dependent variable is binary, and indicates whether a city has joined any of the ETMNs under study (ICLEI, GCoM, or C40). In each dataset, cities that are members of one or more of these networks are assigned a value of 1, while non-member cities are assigned a value of 0. This binary coding allows for the straightforward application of a logistic regression, where the goal is to estimate the probability of a city's membership in these networks based on the independent variables.

Figures 3.1, 3.2, and 3.3 show the U.S. cities that belong to ICLEI, GCoM, and C40, respectively. For these cities, the dependent variable has a value of 1; for cities that do not appear, it has a value of 0.

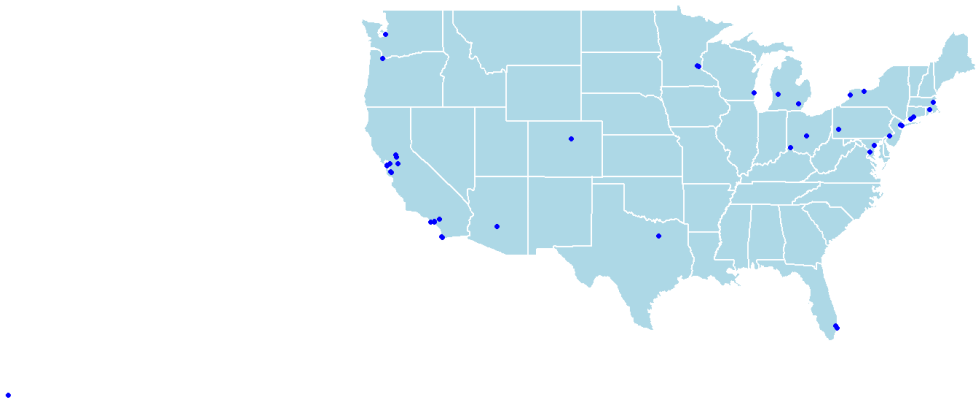

Figure 3.1: ICLEI Member Cities in the United States

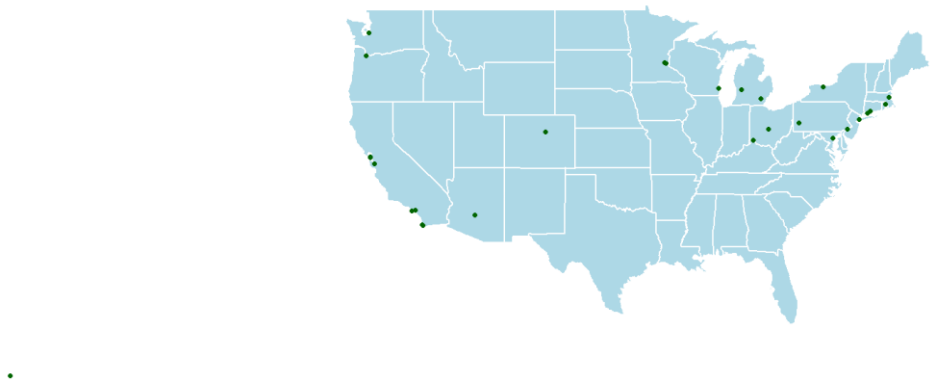

Figure 3.2: GCoM Member Cities in the United States

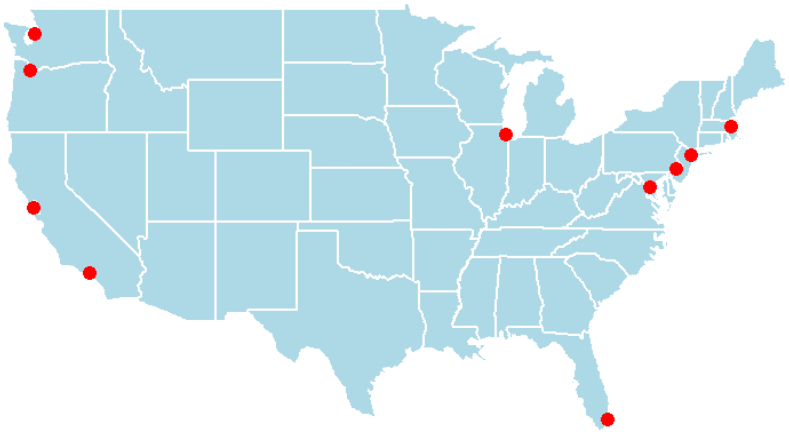

Figure 3.3: C40 Member Cities in the United States

Figures 3.4, 3.5, and 3.6 show the South Korean cities that belong to ICLEI, GCoM, and C40, respectively. For these cities, the dependent variable has a value of 1; for cities that do not appear, it has a value of 0. Twenty-four cities are members of ICLEI, 10 are members of GCoM, and only one city, Seoul, is a member of C40.

Figure 3.4: ICLEI Member Cities in South Korea

Figure 3.5: GCoM Member Cities in South Korea

Figure 3.6: C40 Member Cities in South Korea

Table 3.6 presents the total number of cities in the United States and South Korea that have joined ICLEI, GCoM, and C40.

Table 3.6: Total Number of U.S. and South Korean Cities in each ETMN

	ICLEI	GCoM	C40
United States	42	43	10
South Korea	15	8	1

3.2.2 Results – Which cities sign onto ETMNs

The analysis includes three distinct regression tables, each corresponding to U.S. cities' membership in different Environmental Transnational Municipal Networks (ETMNs).[5] Specifically, Table 3.7 presents the regression results for ICLEI membership, Table 3.8 for GCoM membership, and Table 3.9 for C40 membership.

[5] I separated out the non-partisan mayors, but it didn't make much of a difference.

Table 3.7: Logit Regression Results for ICLEI Membership (US)

	Dependent Variable: ICLEI Membership				
	(1)	**(2)**	**(3)**	**(4)**	**(5)**
Readiness	0.045***	0.042***	0.042***	0.043**	0.043**
	(0.016)	(0.016)	(0.016)	(0.017)	(0.017)
Democratic	1.258***	1.113**	1.150**	1.140**	1.139**
	(0.469)	(0.483)	(0.485)	(0.488)	(0.488)
Population		0.325	0.358	0.370	0.371
		(0.297)	(0.297)	(0.316)	(0.318)
Density			-0.075	-0.098	-0.097
			(0.142)	(0.181)	(0.182)
Risk				0.006	0.005
				(0.032)	(0.032)
Coastal					0.077
					(0.512)
Constant	-3.324***	-7.129**	-7.362**	-7.798*	-7.792*
	(0.799)	(3.557)	(3.495)	(4.531)	(4.553)
Observations	109	109	109	109	109
Log Likelihood	-61.679	-60.990	-60.863	-60.845	-60.833
Akaike Inf. Crit.	129.357	129.980	131.726	133.691	135.666
Note:	*p<0.1; **p<0.05; ***p<0.01				

Table 3.8: Logit Regression Results for GCoM Membership (US)

	Dependent Variable: GCoM Membership				
	(1)	**(2)**	**(3)**	**(4)**	**(5)**
Readiness	0.075***	0.065***	0.065***	0.067**	0.063**
	(0.018)	(0.018)	(0.018)	(0.024)	(0.025)
Democratic	2.629***	2.395***	2.406***	2.401***	2.482***
	(0.651)	(0.671)	(0.672)	(0.662)	(0.654)
Population		1.604***	1.600***	1.615***	1.720***
		(0.440)	(0.441)	(0.449)	(0.473)
Density			-0.019	-0.054	-0.005
			(0.162)	(0.246)	(0.253)
Risk				0.007	-0.003
				(0.040)	(0.040)
Coastal					1.068
					(0.661)
Constant	-5.63***	-24.86**	-24.8***	-25.3***	-26.5***
	(1.164)	(5.707)	(5.780)	(6.797)	(7.250)
Observations	109	109	109	109	109
Log Likelihood	-47.039	-39.786	-39.781	-39.767	-38.298
Akaike Inf. Crit.	100.079	87.571	89.563	91.535	90.597
Note:	*p<0.1; **p<0.05; ***p<0.01				

Table 3.9: Logic Regression Results for C40 Membership (US)

	Dependent Variable: C40 Membership				
	(1)	**(2)**	**(3)**	**(4)**	**(5)**
Readiness	0.040**	0.053	0.064	0.064	0.049
	(0.019)	(0.034)	(0.056)	(0.067)	(0.052)
Democratic	1.838*	0.144	-1.439	-1.439	-1.165
	(1.059)	(1.306)	(2.207)	(2.188)	(1.850)
Population		2.639***	4.281***	4.296**	4.038***
		(0.473)	(1.539)	(1.757)	(1.369)
Density			1.491**	1.479**	1.529***
			(0.732)	(0.604)	(0.589)
Risk				0.004	-0.025
				(0.088)	(0.070)
Coastal					0.943
					(0.945)
Constant	-5.66***	-39.7***	-65.8***	-66.2**	-61.1***
	(1.529)	(7.196)	(24.185)	(30.721)	(23.548)
Observations	109	109	109	109	109
Log Likelihood	-28.711	-14.801	-8.451	-8.450	-8.244
Akaike Inf. Crit.	63.423	37.601	26.902	28.900	30.488
Note:	*p<0.1; **p<0.05; ***p<0.01				

Each table begins with Model (1), which includes two independent variables. Additional variables are incorporated progressively in a step-wise manner. By Model (5), all six independent variables are included. The fit of the models improves with the inclusion of more factors, as evidenced by the progression from Model (1) to Model (5) across all tables (Tables 3.6, 3.7, and 3.8). Additionally, there are 32 cities that have joined multiple ETMNs.[6]

[6] Buffalo, Dallas, Denver, Orange, Rochester, Bridgeport, Cambridge, Grand Rapids, Honolulu, New Haven, Pittsburgh, Sacramento, San Diego, San Jose, St. Paul, Tempe, Ann Arbor, Baltimore, Berkeley, Chula Vista, Cincinnati, Columbus, Jersey City, Long Beach, Milwaukee, Minneapolis, Providence, Tacoma, Oakland, Philadelphia, New York City, Portland

Standardized Average Marginal Effects (U.S. case)

The coefficients reported in the regression models in Tables 3.6, 3.7, and 3.8 cannot be interpreted directly as estimators of the effect of a marginal change in the explanatory variables on the dependent variable, i.e., the probability of observing a particular outcome (Gandenberger et al. 2016). Instead, to provide more meaningful insights into the findings of the analysis, Standardized Average Marginal Effect (SAME) values are calculated for each independent variable on the dependent variable, which represent the likelihood of joining an ETMN.

The Standardized Average Marginal Effect (SAME) is a statistical measure that quantifies the influence of a predictor variable on an outcome variable in a standardized manner. It is derived from the Average Marginal Effect (AME), which calculates the average change in the predicted outcome when the predictor increases by one unit.

Standardization involves rescaling the predictor or outcome variable so that effects are expressed in terms of standard deviations rather than raw units. This allows for meaningful comparisons across models or variables with different measurement scales, such as population and readiness. By eliminating unit differences, the SAME provides a clearer understanding of which variables exert the strongest influence on the outcome.

Figures 3.7, 3.8, and 3.9 present the SAME values for all the independent variables. Specifically, Figure 3.7 corresponds to the results in Table 3.7, which focuses on ICLEI membership. Figure 3.8 relates to the results in Table 3.8, which addresses GCoM membership. Finally, Figure 3.9 provides SAME values for the results in Table 3.9, which pertain to C40 membership. These tables enhance the interpretation of the

models' results by quantifying the average impact of the independent variables on the probability of a city joining the respective ETMNs.

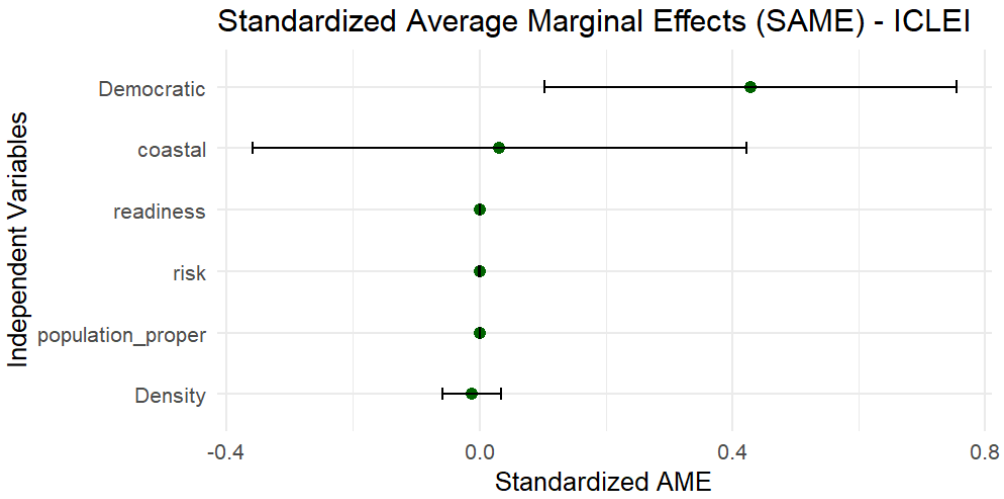

Figure 3.7: Standardized Average Marginal Effects for ICLEI Membership (U.S.)

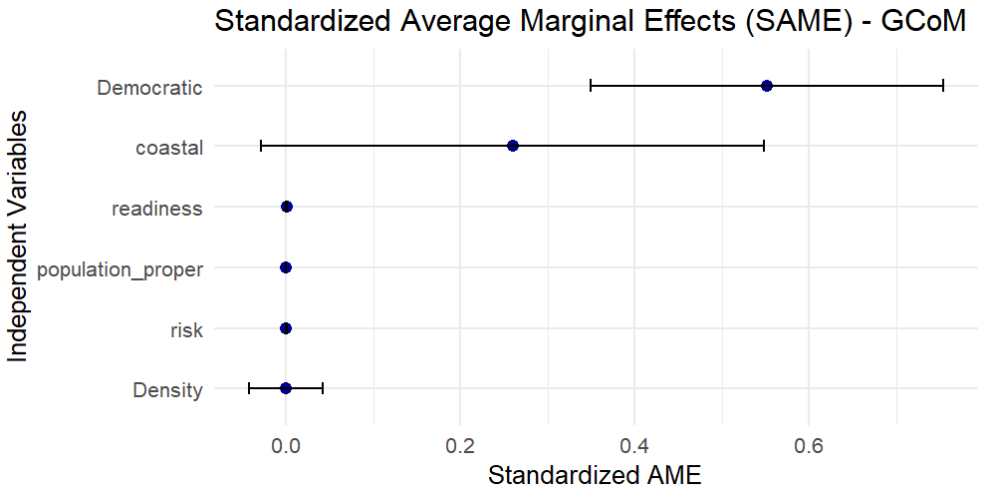

Figure 3.8: Standardized Average Marginal Effects for GCoM Membership (U.S.)

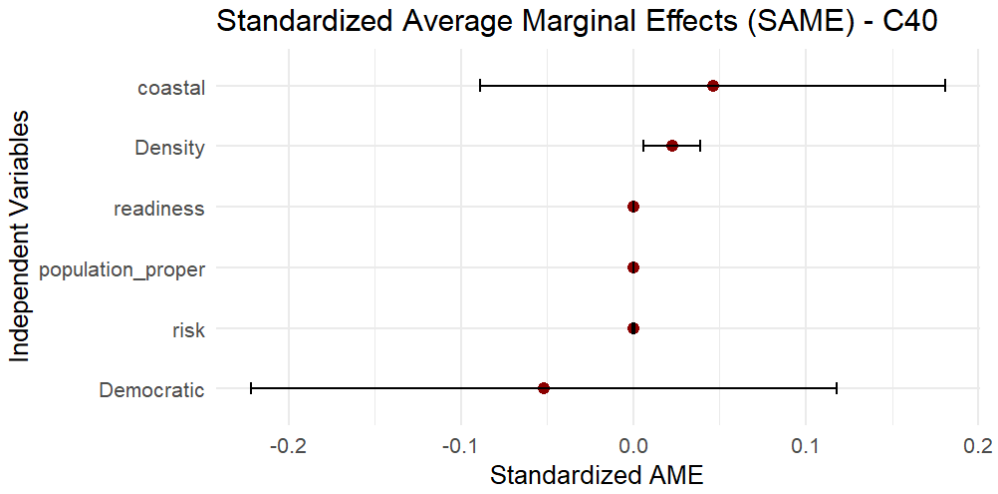

Figure 3.9: Standardized Average Marginal Effects for C40 Membership (U.S.)[7]

The results for ICLEI membership show that a mayor's Democratic political orientation is the strongest predictor, with a SAME value of 0.4284. This indicates that a one–standard deviation increase in the Democratic variable leads to a 42.8% increase in the probability of ICLEI membership.[8] In other words, holding all other variables as their means (continuous terms) or medians (categorical terms), the marginal effect of a one standard deviation increase in Democratic variable is a 42.8% increase in the probability of entering ICLEI. In contrast, coastal cities also show a positive effect (SAME = 0.0316), meaning cities located along the coast are 3.16% more likely to join ICLEI for every standard deviation increase in this variable. This aligns with the expectation that

[7] I attempted to conduct a robustness check by restricting the sample to cities with populations exceeding 3,000,000. However, since only two cities—New York City and Los Angeles—meet this criterion, I decided to forgo the robustness check due to the insufficient sample size.

[8] The reason why I use Standardized Average Marginal Effects (SAME) is to make the results more interpretable and comparable across different variables. Standardization helps account for differences in measurement scales, ensuring that the effect sizes are meaningful when comparing the influence of various factors.

coastal cities are more directly affected by climate change, making them more inclined to participate in sustainability networks.

Readiness for climate action has almost no significant impact on ICLEI membership. This suggests that cities' preparedness for climate change does not play a crucial role in determining their participation in sustainability networks. Instead, political alignment and geographical factors seem to be stronger determinants. Similarly, population size has a negligible impact, meaning ICLEI membership is not necessarily correlated with city size—large and small cities appear to have similar participation rates. Density has a slight negative effect, indicating that higher population density is associated with a marginally lower probability of ICLEI membership. However, this effect is weak and likely not a primary factor. Lastly, risk exposure to climate change has almost no effect, which suggests that cities facing higher climate risks are not necessarily more inclined to join ICLEI.

For GCoM membership, the Democratic variable remains the strongest predictor, with a SAME value of 0.5516, meaning that a one–standard deviation increase in Democratic orientation raises the probability of GCoM membership by 55.2%. Similarly, coastal cities (SAME = 0.2597) show a significant positive effect, where a standard deviation increase in coastal location leads to a 25.97% higher likelihood of GCoM membership. This confirms that coastal cities are more proactive in joining sustainability networks due to their vulnerability to climate change. However, variables such as readiness, population, risk, and density show little to no impact on GCoM membership.

This reinforces the idea that political ideology and geographical factors outweigh climate preparedness and city size in influencing network participation.

For C40 membership, the results show a different pattern. Unlike the previous models, having a Democratic mayor negatively correlates with C40 membership, suggesting that a higher Democratic orientation slightly reduces the likelihood of a city joining C40. This finding is unexpected compared with those for ICLEI and GCoM and could be attributed to C40 being a network focused on global megacities, where political ideology may be less of a driving factor than economic incentives or international branding. In contrast, higher population density and coastal location increase the likelihood of C40 membership, meaning that denser and coastal cities are more likely to participate in this elite transnational municipal network. Similar to the previous models, readiness, population, and risk have minimal effects, reinforcing that these variables are not key determinants of C40 participation.

To be more specific about C40 membership, cities in the network are classified into three membership categories: Megacity, Innovator, and Observer. Megacities are those demonstrating outstanding climate leadership on a global scale and either currently have or are projected to have a population exceeding 3 million by 2030.[9] Innovator cities

[9] Abidjan; Accra; Addis Ababa; Ahmedabad; Amman; Athens; Bangkok; Barcelona; Bengaluru; Berlin; Bogotá; Boston; Buenos Aires; Cape Town; Casablanca; Chengdu; Chennai; Chicago; Ciudad de México; Curitiba; Dakar; Dalian; Dar es Salaam; Delhi NCT; Dhaka; Dubai; Durban (eThekwini); Fortaleza; Fuzhou; Guadalajara; Guangzhou; Hangzhou; Hanoi; Hong Kong, China; Ho Chi Minh City; Houston; Istanbul; Jakarta; Johannesburg; Karachi; Kuala Lumpur; Lagos; Lima; Lisbon; London; Los Angeles; Madrid; Medellín; Melbourne; Miami; Milan; Montréal; Mumbai; Nairobi; Nanjing; New York City; Paris; Philadelphia; Phoenix;Qingdao; Quezon City; Quito; Rio de Janeiro; Rome; Salvador; San Francisco; Santiago; São Paulo; Seattle; Seoul; Shenzhen; Sydney; Tel Aviv-Yafo; Tokyo; Toronto; Tshwane; Warsaw; Washington, DC; Wuhan; Yokohama; Zhenjiang. This data can be found in https://www.c40.org/cities/ (Access Date 2/28/2025)

also exhibit exceptional climate leadership worldwide but do not meet the population or size requirements of a Megacity.[10] Observer cities qualify for either Megacity or Innovator status based on their climate efforts but require additional approval due to local regulatory or procedural constraints.[11] Among 93 C40 cities, 78 are Megacities, highlighting the influence of population density and size on C40 membership. While these membership categories themselves do not directly influence the analytical framework of this study, the fact that C40 predominantly comprises larger cities may inadvertently contribute to a correlation between population density and a city's commitment to C40 initiatives.

The findings highlight that a Democratic political orientation is the most significant predictor of ICLEI and GCoM membership, while coastal location consistently increases the probability of participation in all three networks. However, C40 appears to be an exception, where Democratic orientation does not drive membership and may even have a slight negative effect. This suggests that C40 operates under a different membership mechanism compared to ICLEI and GCoM. This discrepancy may be due to C40's specific membership criteria, which focuses on megacities with populations exceeding 3 million or those projected to reach that threshold by 2030.

City size and climate risk exposure do not significantly affect network membership, indicating that even highly climate-vulnerable cities are not necessarily

[10] Amsterdam; Auckland; Austin; Copenhagen; Freetown; Heidelberg; New Orleans; Oslo; Portland; Rotterdam; Stockholm; Vancouver. This data can be found in https://www.c40.org/cities/ (Access Date 2/28/2025)
[11] Beijing; Shanghai; Singapore. This data can be found in https://www.c40.org/cities/ (Access Date 2/28/2025)

more likely to join sustainability networks. This underscores the need for more targeted outreach efforts to cities that are at high risk but not yet actively engaged in international climate governance. The findings also suggest that ICLEI and GCoM membership expansion should focus on leveraging political leadership and geographical vulnerabilities to maximize participation.

Efforts to expand C40 membership should focus on large, high-density, and coastal cities, as these characteristics are the strongest predictors of participation. Unlike ICLEI and GCoM, C40 membership is not strongly influenced by political orientation, likely due to its distinct membership criteria. While ICLEI and GCoM welcome municipalities of all sizes, from major cities to small towns, C40 primarily consists of megacities, making population size and density more critical factors in determining membership.

These insights demonstrate the distinct factors influencing membership in different transnational municipal networks, providing a roadmap for policymakers and climate advocates to tailor their engagement strategies effectively. The findings reinforce the importance of political leadership and geographic vulnerability in shaping local participation in international climate governance, while also highlighting the limits of climate risk and city size as predictors of engagement.

Which cities join ETMNs – the South Korean case

Table 3.10 presents the regression results for ICLEI membership among South Korean cities, and Table 3.11 presents the same for GCoM membership.[12] Each table begins with Model (1), which includes two independent variables. Variables are incorporated progressively in a step-wise manner. By Model (4), all five independent variables are included. The fit of the models improves with the inclusion of more factors, as evidenced by the progression from Model (1) to Model (4) across both tables (Tables 3.10 and 3.11). I analyze each ETMN individually, as they have distinct features such as number of total member cities.

[12] Seoul is the only city that is a member of C40, so I did not include regression results for C40 membership.

Table 3.10: Regression Results for ICLEI Membership (South Korea)

	Dependent Variable: ICLEI Membership			
	(1)	**(2)**	**(3)**	**(4)**
Population	2.391***	2.440**	4.896***	4.904***
	(0.810)	(1.044)	(1.425)	(1.455)
Autonomy	0.051	0.114**	0.284***	0.284***
	(0.039)	(0.046)	(0.064)	(0.062)
Ideology		2.694***	3.267***	3.275***
		(0.856)	(0.993)	(1.021)
			-	-
GRDP			3.112***	3.116***
			(1.063)	(1.082)
Density				-0.005
				(0.070)
	-	-		
Constant	33.024***	36.568***	-22.343	-22.330
	(10.112)	(13.684)	(15.212)	(15.166)
Observations	77	77	77	77
Log Likelihood	-31.050	-25.221	-20.498	-20.495
Akaike Inf. Crit.	68.101	58.443	50.995	52.990
Note:	*p<0.1; **p<0.05; ***p<0.01			

Table 3.11: Regression Results for GCoM Membership (South Korea)

	Dependent Variable: GCoM Membership			
	(1)	**(2)**	**(3)**	**(4)**
Population	0.608	0.573	2.718**	2.703**
	(0.539)	(0.554)	(1.293)	(1.222)
Autonomy	0.020	0.027	0.128*	0.128*
	(0.035)	(0.038)	(0.069)	(0.069)
Ideology		0.451	0.371	0.358
		(0.809)	(0.869)	(0.957)
GRDP			-2.924**	-2.909**
			(1.480)	(1.435)
Density				0.005
				(0.066)
Constant	-10.376	-10.289	6.603	6.508
	(6.444)	(6.497)	(10.042)	(10.134)
Observations	77	77	77	77
Log Likelihood	-27.313	-27.145	-23.791	-23.788
Akaike Inf. Crit.	60.626	62.290	57.582	59.576
Note:	*p<0.1; **p<0.05; ***p<0.01			

It becomes evident that, in the case of ICLEI, key factors such as population size, autonomy, and partisanship play a significant positive role. As these variables increase, the likelihood of a city's involvement with ICLEI also increases. On the other hand, Gross Regional Domestic Product (GRDP) shows a significant negative association with ICLEI membership, suggesting that regions with higher GRDP may be less inclined to participate or face challenges participating in ICLEI.

For GCoM, a similar pattern is observed, with larger populations and greater autonomy contributing positively to cities' engagement with the network. However, in contrast, GRDP once again demonstrates a significant negative relationship with

membership, implying that higher regional economic output might be associated with decreased participation or other related dynamics affecting GCoM membership.

Standardized Average Marginal Effects

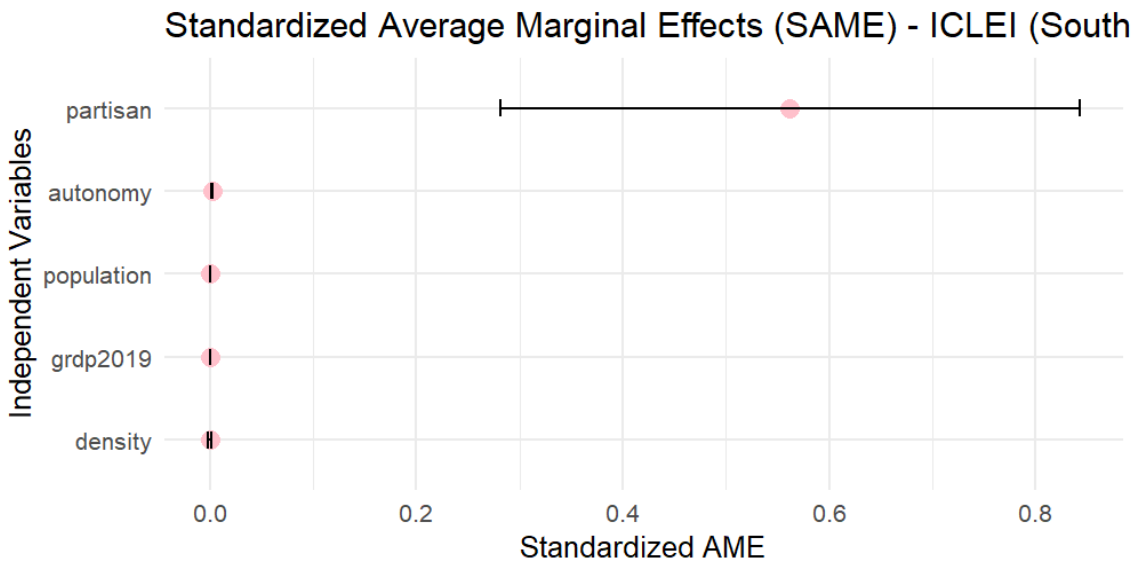

Figure 3.10: Standardized Average Marginal Effects for ICLEI Membership (South Korea)

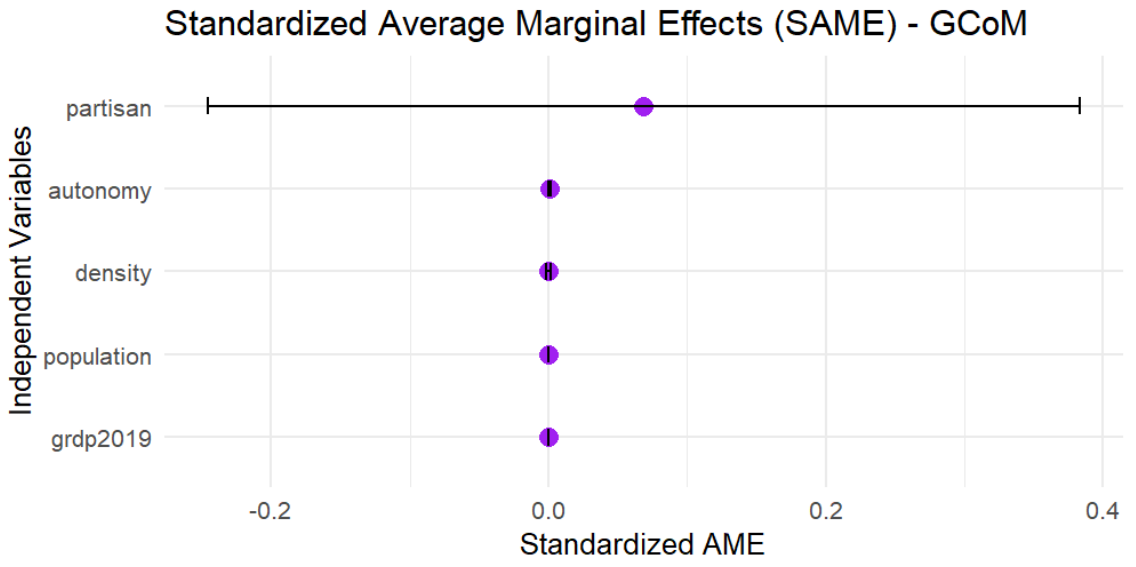

Figure 3.11: Standardized Average Marginal Effects for GCoM Membership (South Korea)

The two graphs present the Standardized Average Marginal Effects (SAME) of various factors on the likelihood of South Korean cities joining ICLEI and GCoM sustainability networks. The analysis of these variables provides insights into the key drivers of membership in these networks. The results for ICLEI membership among South Korean cities reveal that the mayor's party is the most significant factor influencing a city's likelihood of joining the network. With a SAME value of 0.5616, an increase of one standard deviation in the party variable corresponds to a 56.2% increase in the probability of ICLEI membership. This suggests that cities with stronger political alignment toward environmental policies or progressive governance are far more likely to engage with ICLEI. Autonomy, which refers to the degree of decision-making power cities have, shows a small but positive effect (SAME = 0.00195), indicating that cities with more independent local governance are slightly more inclined to join ICLEI.

The reason why I use Standardized Average Marginal Effects (SAME) is to make the results more interpretable and comparable across different variables. Standardization helps account for differences in measurement scales, ensuring that the effect sizes are meaningful when comparing the influence of various factors.

Population size has a very small effect, suggesting that ICLEI membership is not strongly determined by city size. Whether a city is large or small, its likelihood of joining ICLEI remains relatively constant. Economic capacity, measured by GRDP per capita, exhibits a negligible negative effect, implying that wealthier cities are not necessarily more likely to engage with ICLEI. Financial resources do not seem to be a primary determinant of participation in this sustainability network. Density also shows a weak

negative effect, indicating that more densely populated cities are slightly less likely to join ICLEI, though the effect size is extremely small.

For GCoM membership, the party variable still plays a role, but its impact is significantly weaker than its effect on ICLEI membership. The SAME for party affiliation is 0.0688, meaning that an increase of one standard deviation in a progressive party orientation increases the probability of GCoM membership by only 6.9%. This suggests that while politics do affect GCoM participation, they have less influence than they do on ICLEI participation. Autonomy, with a SAME of 0.00099, plays a similarly small role, reinforcing the notion that more independent local governance only marginally increases the likelihood of a city joining GCoM.

As with ICLEI membership, population size has a negligible effect on GCoM membership, suggesting that participation in the network is not determined by city size. Economic capacity, represented by GRDP per capita, again has a very weak negative effect, indicating that wealthier cities do not exhibit a strong tendency to join GCoM. Interestingly, density has a slightly positive effect, unlike in the ICLEI model, where it was negative. This suggests that GCoM membership may be slightly more common among dense urban municipalities, though the effect remains marginal.

These findings highlight key differences between the two transnational municipal networks. ICLEI membership in South Korea is strongly influenced by a city's political orientation, with cities with progressive governing parties much more likely to participate. In contrast, GCoM membership appears to be less politically driven, with the mayor's party playing a much smaller role. Additionally, population size, economic

resources, and density are largely irrelevant to cities' participation in either network. The minor variations in density effects between ICLEI and GCoM suggest that ICLEI may be slightly less appealing to dense cities, while GCoM is not.

From a policy perspective, these findings suggest that expanding ICLEI membership in South Korea likely requires better engagement of more conservative or politically neutral municipalities, as political alignment remains the dominant predictor of participation. Meanwhile, GCoM membership may be increased most effectively via broader awareness campaigns, since it appears less dependent on political factors. The fact that economic resources do not play a significant role in either network suggests that funding constraints are not major barriers to entry, and outreach efforts should focus more on governance structures and local leadership buy-in rather than financial incentives.

This result draws on liberal institutionalist theory to explain why cities join ETMNs. Rather than responding to environmental vulnerability, cities in both the U.S. and South Korea are primarily motivated by domestic political orientation and strategic considerations. Progressive-leaning municipalities are significantly more likely to join networks like ICLEI and GCoM, suggesting that ideological alignment is a key driver of participation.

Liberal institutionalism helps make sense of these patterns by emphasizing how subnational actors use international networks to advance policy preferences, build credibility, and pursue practical benefits. City leaders assess membership through a political lens, viewing ETMNs as tools for signaling commitment, accessing resources,

and reinforcing domestic agendas. The case of C40, where economic strength and global branding outweigh ideology, further illustrates the strategic logic behind network selection.

Ultimately, cities act as politically embedded actors making calculated decisions about international engagement. This study underscores the central role of domestic politics in shaping city participation in global climate governance and affirms liberal institutionalism as a valuable framework for understanding this behavior.

The contrasts between the U.S. and South Korea further illustrate how national institutional frameworks mediate these expressions of municipal identity. In the U.S., the decentralized federal system grants cities greater autonomy to translate political orientations into international engagement. Conversely, South Korean cities, operating within a more centralized governance structure, exhibit weaker political effects, implying that their participation is shaped—if not constrained—by national agendas and priorities. These findings highlight that the meaning and function of ETMN engagement are socially constructed and deeply embedded within specific political and institutional contexts.

3.3 When do cities join ETMNs?

3.3.1 Cox Proportional Hazards Regression for Time-Series Cross-Sectional Analysis

The third dataset is a cross-sectional time series spanning the years 2014 to 2024, and focuses specifically on U.S. cities that joined GCoM during this period. A Cox

proportional hazards regression was chosen for this analysis due to its suitability for examining the timing of events—in this case, the year a city joined GCoM. This model is particularly valuable for analyzing time-to-event data and is capable of handling censored data, where the event of interest (joining GCoM) may not have occurred for all cities within the study period. The Cox model can be used to assess the impact of various predictors on the hazard rate, or the likelihood that a city will join GCoM at a particular point in time, given that it had not joined until that time. This approach allows for a dynamic analysis of city participation in ETMNs, capturing the temporal dimensions of urban engagement in global environmental networks.

In this dataset, both population and mayoral leadership change over time, making it valuable for analyzing temporal variations in these factors. In particular, the dataset provides important insights into the role of the mayor's political party, which fluctuates with electoral cycles and governance shifts. Since political affiliation is not a static characteristic, a cross-sectional analysis would struggle to fully capture its influence on sustainability network membership. By incorporating longitudinal data, this dataset allows for a more dynamic understanding of how changes in political leadership impact a city's likelihood of joining networks like GCoM over time. Regarding the other control variables, the climate readiness and climate risk scores are based on 2016 data. Coastal status is a fixed attribute, making the year irrelevant. Density and population data are from 2023.

The dependent variable is time-to-event, indicating the year a city joined GCoM. For cities that joined GCoM within the study period (2014–2024), the variable is coded 0

up until the year of joining, after which it is coded 1. This approach aligns with the requirements of the Cox Proportional Hazards Model, enabling the analysis to account for the timing of membership and assess the influence of the independent variables on the hazard rate of joining the network.

3.3.2 Results – When cities sign onto ETMNs

Table 3.12 presents the effects of the independent and control variables on the commitment of cities to GCoM. This model is used to test each hypothesis. The coefficients measure the impact of these variables on the likelihood of joining GCoM. Positive coefficients indicate that an increase in the independent variable raises the likelihood of joining GCoM, while negative coefficients suggest a decrease in this likelihood.

The results provide strong support for hypotheses 1, 2, and 3 related to population, climate readiness, and democratic mayors, respectively. Specifically, cities led by democratic mayors, those with greater climate readiness, and those with larger populations are more likely to join GCoM.

The selection of GCoM and U.S. cities for this analysis was primarily driven by considerations of data availability. In addition to membership data, the analysis required detailed information on variables such as population, population density, mayoral leadership, climate risk, and readiness indicators. These data were consistently accessible only for U.S. cities, particularly larger municipalities, making them the most feasible focus for the study. While ICLEI maintains relatively low entry barriers, allowing even

smaller cities and towns to join, comprehensive data on these smaller localities were largely unavailable. Collecting city-level, time-series data proved exceptionally challenging, and comparable datasets for cities outside the United States—such as those in South Korea—were not obtainable for the purposes of this research. As such, the geographic focus and network selection reflect the constraints of data availability, rather than a lack of analytical interest in other cities or networks like ICLEI.

Table 3.12: Regression Results Across Multiple Cox Hazards Models

	Dependent Variable: t2				
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Readiness	0.080***	0.084***	0.084***	0.085***	0.084***
	(-0.011)	(0.012)	(0.012)	(0.014)	(0.014)
Democratic	2.450***	2.379***	2.424***	2.408***	2.399***
	(-0.392)	(0.397)	(0.402)	(0.412)	(0.413)
Population		0.238***	0.277***	0.283***	0.285***
		(0.041)	(0.069)	(0.079)	(0.079)
Density			-0.104	-0.124	-0.124
			(0.148)	(0.188)	(0.188)
Risk				0.004	0.003
				(0.020)	(0.020)
Coastal					0.081
					(0.318)
Observations	851	851	851	851	851
R2	0.116	0.131	0.132	0.132	0.132
Max. Possible R2	0.503	0.503	0.503	0.503	0.503
Log Likelihood	-245.539	-237.985	-237.728	-237.712	-237.680
Wald Test	81.830*** (df=2)	105.710*** (df = 3)	104.590*** (df = 4)	104.300*** (df = 5)	104.410*** (df = 6)
LR Test	104.557*** (df=2)	119.666*** (df = 3)	120.180*** (df = 4)	120.211*** (df = 5)	120.276*** (df = 6)
Score (Logrank) Test	107.678*** (df=2)	226.135*** (df = 3)	230.023*** (df = 4)	230.059*** (df = 5)	231.420*** (df = 6)
Note:	*p<0.1; **p<0.05; ***p<0.01				

3.4 Conclusion

Regarding the first question, which cities join ETMNs, political orientation emerges as the strongest predictor of ICLEI membership in both the United States and South Korea. In the United States, a one–standard deviation increase in Democratic political alignment raises the probability of ICLEI membership by 42.8%, while in South Korea, left party alignment results in a 56.2% increase. This underscores that politically progressive or environmentally inclined local governments are more likely to engage with ICLEI across both contexts.

When it comes to GCoM membership, however, the influence of political orientation differs across the two contexts. In the United States, political alignment is a significant factor in GCOM membership, with a one–standard deviation increase in a city's Democratic orientation increasing the likelihood of its joining GCOM by 55.2%. In contrast, in South Korea, the effect is much weaker (6.9%), indicating that while political ideology is a dominant driver of U.S. cities' engagement with sustainability networks, South Korean cities may be influenced by other governance factors, not just the mayor's party.

An interesting deviation is observed in the analysis of C40 membership in the United States, where Democratic political orientation is negatively correlated with participation (-5.19% per standard deviation). This suggests that C40 membership may be shaped more by economic and strategic positioning than by ideological commitments—

an influence that cannot be directly compared with South Korea since Seoul is the only South Korean city that belongs to C40.

In terms of geography, a coastal location consistently increases the likelihood that an American city will join ICLEI, GCoM, or C40. Coastal cities seem to participate at higher rates due to their heightened vulnerability to climate change. For instance, a coastal location raises the probability of GCoM membership by 25.97%, making this factor the second most significant predictor of membership after political alignment. Similarly, a coastal location increases C40 membership by 4.6%, reinforcing the role of geographic vulnerability in sustainability network participation.

While the South Korean data do not explicitly account for coastal location, population density plays a small yet notable role. Density has a slight negative effect on ICLEI membership (-0.0000617), whereas it has a small positive effect on GCoM membership (0.000078). In the United States, density negatively affects ICLEI membership (-1.19%) but positively influences C40 participation (2.24%), suggesting that denser cities may be more inclined toward elite climate networks like C40.

In both cases, population size does not seem to significantly affect network participation. The SAME values for city size remain negligible, implying that cities of different sizes have similar probabilities of joining ETMNs. Additionally, climate risk exposure seems to have minimal impact on the participation of American cities in these networks, suggesting a disconnect between actual climate vulnerability and network engagement. Although the South Korean data do not explicitly examine climate risk, the

findings regarding economic capacity (GRDP per capita) align with those from the United States, in that it is not a significant predictor of membership in either country, demonstrating that financial resources do not necessarily translate into higher ETMN engagement.

While the political influences on ETMN participation are strong in both countries, coastal vulnerability is a pronounced factor in the United States, whereas local autonomy in governance plays a unique but minor role in South Korea. Additionally, C40 membership operates differently from membership in ICLEI and GCoM, requiring a distinct strategy that emphasizes economic and international branding rather than political ideology.

One may question the presence of a selection effect since cities do not randomly decide to join these networks. Instead, certain pre-existing characteristics—such as political ideology, economic capacity, climate vulnerability, or prior commitments to sustainability—may make some cities more likely to join than others. This suggests that the observed relationships between explanatory variables and network membership may be biased due to endogenous selection, meaning they reflect underlying city characteristics rather than the causal impact of network membership. For example, if cities with strong environmental policies are already predisposed to join climate networks, the regression results may overestimate the influence of these networks on climate action.

However, addressing this selection effect does not require establishing a clear causal mechanism between the explanatory variables and ETMN membership. Rather, the analysis aims to identify the conditions under which cities join ETMNs rather than to explain why they do so. The focus is on understanding *which* cities are more likely to become members, not necessarily on determining a causal pathway leading to membership.

Regarding the second question of when cities join ETMNs, the findings confirm that democratic leadership, climate readiness, and larger population size significantly increase the likelihood of GCoM membership, supporting hypotheses 1, 2, and 3. Positive coefficients indicate that these factors collectively contribute to stronger commitments to transnational sustainability initiatives. One might question about a selection effect in this analysis. Cities are not randomly joining GCoM but rather doing so based on certain pre-existing characteristics. For example, cities with stronger environmental commitments, more progressive political leadership, greater financial capacity, or higher exposure to climate risks may be more inclined to join GCoM earlier than others. This means that the factors influencing GCoM membership might also be driving climate action independently, making it difficult to isolate the true effect of network membership. To address this selection effect, I control for key confounding variables, such as political ideology, population, population density, climate risk, and climate readiness within the Cox model.

All in all, this dissertation challenges the assumption that climate vulnerability is the primary driver of cities' membership in ETMNs. The findings demonstrate that climate risk exposure is not a significant predictor of membership, as highly vulnerable cities are not necessarily more inclined to participate in sustainability networks. Instead, political orientation—specifically progressive governance—plays a dominant role in both the United States and South Korea, though its impact varies across the specific networks. Moreover, in the United States, the geographic factor of coastal location significantly increases participation rates, suggesting that direct exposure to climate impacts can influence engagement, but only when coupled with political commitment or strategic considerations.

A combination of political openness and geographic positioning appear to be the primary motivators of cities' engagement with ETMNs, rather than climate risk itself. In the United States, Democratic leadership strongly predicts ICLEI and GCoM membership, whereas C40 membership is more aligned with economic and strategic positioning rather than ideological commitments. In South Korea, political orientation plays a stronger role in ICLEI membership than in GCoM participation, implying that governance structures and decentralization also shape engagement.

Overall, the findings in Chapter 3 align closely with a liberal institutionalist perspective on municipal engagement in ETMNs. Across both the United States and South Korea, political orientation stands out as the most consistent and robust predictor of participation. Cities with progressive leadership are significantly more inclined to join

networks such as ICLEI and GCoM, suggesting that domestic ideological alignment plays a central role in shaping transnational climate cooperation at the local level. From a liberal institutionalist perspective, this behavior reflects a rational calculation by local actors to leverage international institutions in ways that enhance their policy credibility, reputational standing, and strategic positioning—both domestically and internationally.

The comparison between the U.S. and South Korea highlights the role of national institutional contexts. U.S. cities, benefiting from decentralized governance, have greater autonomy to act on their political identities, while South Korean cities show weaker political effects, likely shaped by centralized national priorities. These dynamics underscore that ETMN participation is socially constructed, influenced by political and institutional environments rather than purely material considerations.

Chapter 4 Why South Korean cities join ICLEI

4.1 Introduction

This chapter focuses on South Korean cities and their selection of ICLEI as the focal point of their environmental strategies. I employ qualitative research methods, including participant observation and semi-structured interviews, to capture rich details that quantitative analysis alone cannot provide. This qualitative approach is particularly relevant to the persuasion hypothesis (H5), which posits that cities are more likely to join ETMNs when influenced by the persuasive efforts of political elites and international organizations. Since such efforts are often subtle, informal, and difficult to quantify, qualitative data provide critical insights into how external actors shape cities' environmental commitments and institutional choices.

I chose the South Korean case for a couple of reasons. Firstly, the country's rapid urban development and its active engagement in global environmental governance make it a fruitful context in which to explore cities' motivations to join ETMNs. The country's cities, particularly metropolitan areas like Seoul and Busan, have increasingly sought to position themselves as eco-friendly, innovative leaders on the global stage. This focus on international image and branding provides a rich ground to test whether the opportunity to enhance their reputations is cities' primary motivation for joining ETMNs.

Secondly, the South Korean case offers both the diversity and accessibility necessary to gather data on the motivations of local officials and the impact of external persuasive efforts, making it an effective context in which to test my hypotheses. South Korea's local governments vary in their economic status and political orientation,

providing a rich landscape for analyzing different motivations behind ETMN participation. Moreover, the accessibility of local officials for interviews enhances the feasibility of systematically investigating the factors that shape cities' decisions to join and engage with these networks.

Through the qualitative methods, I capture the lived experiences of those involved in decision-making processes in South Korean cities, providing a voice to the municipal officials, policymakers, and environmental activists who drive these initiatives. The semi-structured interviews, in particular, allow for an in-depth exploration of the motivations, challenges, and aspirations of these stakeholders, offering rich, detailed narratives that complement the broader quantitative findings of the previous chapter.

To summarize the main findings, a city's decision to join ETMNs is not determined by political ideology alone. In South Korea, mayors' personal leadership styles and individual commitment to sustainability often play a more decisive role than partisan alignment. While political progressivism generally correlates with environmental action, leadership choices can sometimes override ideological expectations.

The primary motivation for cities joining ICLEI is city branding and reputation, with persuasion emerging as the key mechanism driving membership. Contrary to expectations, climate vulnerability is rarely cited as a primary reason for joining. Instead, cities with lower institutional capacity actively seek ICLEI membership to gain technical expertise and resources. This suggests that municipalities with limited internal expertise may use ICLEI as a capacity-building tool—an important dynamic not fully captured in statistical models.

4.2. Methods and Data

This chapter employs a mixed-methods approach, combining participant observation with semi-structured interviews to gain a deep understanding of the factors that influence cities' decisions to engage with ETMNs. This methodology is designed to capture both the observable practices and the underlying motivations, challenges, and benefits associated with local governments' participation in global environmental networks such as ICLEI and GCoM. By integrating the two qualitative methods, the study illuminates the complex dynamics at play in these networks, providing insights that are beyond the reach of traditional quantitative analysis.

4.2.1 Participant Observation

From June to August 2023, I conducted participant observation at the ICLEI Korea Office, immersing myself within the organization to gain firsthand experience of its operations, governance structure, and the processes by which cities commit to joining ETMNs. This three-month period of immersion was instrumental in providing a comprehensive understanding of the day-to-day activities, decision-making processes, and strategic collaborations that characterize ICLEI's role as an ETMN. The participant observation also allowed me to observe the interactions between ICLEI and other ETMNs, offering insights into the broader network of relationships that facilitate global environmental governance.

During this period, I closely observed various aspects of ICLEI’s functions, including its role in promoting sustainability initiatives, its interactions with member

cities, and the ways it helps local governments implement climate action plans. I also paid particular attention to the governance mechanisms within ICLEI, examining how decisions are made, how responsibilities are distributed among different actors, and how the organization ensures accountability and transparency in its operations. By being embedded within the organization, I explored the processes through which cities are recruited and supported as they transition into active membership in ICLEI, gaining insights into the commitment process and the challenges that cities face in maintaining their membership and engagement with the network.

4.2.2 Semi-Structured Interviews

In addition to participant observation, I conducted 18 semi-structured interviews with a diverse group of stakeholders, including environmental activists, public officials, scholars, and officers at the ICLEI Korea Office. These interviews were designed to delve deeper into the specific factors that drive cities' decisions to join ETMNs, as well as the conditions under which they actively participate in the activities governed by these networks. The semi-structured format of the interviews allowed for flexibility in exploring the interviewees' perspectives, enabling a thorough investigation of the nuances and complexities associated with cities' engagement in ETMNs.

The interview questions were crafted to uncover the motivations, strategic considerations, and challenges that cities face when committing to ETMNs. Key areas of inquiry included: the timing and reasons for cities' decisions to join ETMNs; the role of political leadership and local governance structures in facilitating or hindering these

commitments; cities' perceptions of the benefits of membership in these networks, such as access to resources, knowledge exchange, and enhanced international visibility; and the role of the central government in either supporting or restricting paradiplomacy, the phenomenon of local governments engaging in international relations independently of the national government.

The selection of interviewees was strategic, ensuring a broad representation of perspectives from different sectors involved in urban climate governance. City officials provided insights into the practicalities of implementing sustainability initiatives at the local level, while environmental activists offered a critical view of how these initiatives align with broader environmental justice goals. Officers from ICLEI shared their experiences facilitating transnational collaborations, and scholars contributed theoretical and analytical perspectives that contextualized these practices within the broader framework of global environmental governance.

The interviews were conducted in a manner that encouraged open and candid discussions, allowing interviewees to freely share their experiences, opinions, and insights. This approach was crucial to gaining an authentic understanding of the challenges and opportunities associated with cities' participation in ETMNs, as well as the ways local governments navigate the complexities of global climate governance.

4.2.3 Data Collection and Analysis

The data collection process was designed to ensure the reliability and validity of the findings. The participant observation was documented through detailed field notes,

which were regularly reviewed and analyzed to identify emerging themes and patterns. These notes provided a rich source of qualitative data, capturing the informal interactions, decision-making processes, and organizational dynamics that are often overlooked in formal reports and documents. The semi-structured interviews were recorded with the consent of the participants and subsequently transcribed for analysis.

In analyzing the data, I employed a combination of inductive and deductive approaches. The inductive approach allowed for the emergence of themes directly from the data, while the deductive approach was guided by the theoretical framework established in the preceding chapters. This dual approach facilitated a comprehensive analysis that not only explored the specific factors influencing cities' participation in ETMNs but also situated these findings within the broader context of global environmental governance.

To assess the main driver of cities' decisions to join ETMNs, I utilized semi-structured interviews with local officials. I focused on exploring their perceptions and priorities, asking open-ended questions that allowed them to elaborate on their motivations. Specifically, I examined the extent to which they prioritized global reputation enhancement, eco-friendly branding, and economic benefits such as increased tourism and investment versus addressing climate vulnerabilities. Additionally, I inquired about the benefits they expected or had experienced from ETMN membership, analyzing whether these aligned more with branding and reputation or with concrete climate action.

I examined how ETMN membership was integrated into cities' strategic planning and public communication strategies. By asking officials to describe how they promote

ETMN membership and its impact on a city's image, I could assess whether their emphasis was on global alignment and reputation building or on climate adaptation measures.

I also investigated the specific climate initiatives implemented post-membership to determine whether they were primarily symbolic and whether they seemed intended to enhance a city's image. If officials indicated that climate progress was secondary, or that they were more interested in gaining international recognition than addressing local vulnerabilities, it would reinforce the argument that branding is the primary motivation to join an ETMN.

Case studies and semi-structured interviews shed light on the hypothesis that the likelihood of a city joining an ETMN increases when it is exposed to the persuasive efforts of political elites and international organizations. Cities that are directly engaged by organizations like ICLEI or C40 or directly encouraged by political elites such as national leaders, influential mayors, or global climate advocates may demonstrate a higher likelihood of joining an ETMN. This would be supported by examples where cities joined an ETMN shortly after an invitation or advocacy from these actors or where international organizations provided essential resources or knowledge to persuade city leaders. Conversely, if cities with less exposure to such persuasive efforts join ETMNs at similar or higher rates, it would challenge the hypothesis, suggesting that other internal motivations may play a more significant role than external persuasion in cities' decisions to join ETMNs.

4.2.4 Ethical Considerations

Ethical considerations were paramount throughout the research process. The study adhered to the principles of informed consent, confidentiality, and respect for participants' autonomy. The Institutional Review Board (IRB) determined that the proposed activities did not qualify as research involving human subjects according to DHHS and FDA regulations, confirming that no further IRB review or approval was necessary for this activity. Despite this determination, I maintained rigorous ethical standards, ensuring that all participants were fully informed about the purpose of the research, their right to withdraw at any time, and the measures taken to protect their confidentiality.

To further ensure the ethical integrity of the research, all data collected during the study were securely stored, and access was restricted to authorized personnel only. Anonymized data were used in the reporting of findings to protect the identities of the participants, particularly those who provided sensitive or critical insights that could potentially impact their professional relationships or standing.

4.3 Analysis

4.3.1 Reputational Enhancement as a Key Driver of ICLEI Membership

International Forums Produce Transformative Experiences

ICLEI actively engages in numerous domestic and international conferences, discussions, and outreach programs. The organization frequently visits municipalities to inform and persuade local government officials about its initiatives. Specifically, the

ICLEI Korea Office also facilitates the exposure of local government representatives to international forums, as corroborated through interviews.

To illustrate, one respondent, who closely observed the initial wave of local governments joining ICLEI, highlighted a pivotal moment during the ICLEI World Congress in 2012, held in Belo Horizonte, Brazil. Facilitated by the Hope Institute,[1] 15 mayors and governors from South Korea participated in a 12-day immersive training course (Interview 1). The interviewee said, "ICLEI took 15 member cities to participate in the ICLEI General Assembly for a week. These cities with strong commitment started early."

The training, which addressed the theme "Sustainable Urban Strategy: Diverse Experiments and Practices in Brazil," examined various approaches to sustainable development at the local government level. Participants explored cities like Belo Horizonte, Curitiba, and Rio de Janeiro, getting firsthand exposure to innovative sustainability initiatives. Additionally, delegates attended the 2012 ICLEI General Assembly, deepening their understanding of global sustainability challenges and solutions (Mokminkwan, 2012). This training served as a platform for sharing experiences and ideas, embodying the communicative learning process.

During the ICLEI World Congress, Hong Miyoung, the mayor of Bupyeonggu, seized the opportunity to present Bupyeong's vision for sustainable development at the

[1] The Hope Institute was founded in 2006 with the slogan "A 21st Century Practical Movement." The Hope Institute envisions equal development between local and central areas, the realization of diverse ideas from citizens, opportunities for retirees to utilize their skills in the public sector, a thriving social economy ecosystem, and the emergence of innovative public leaders through field-based education. Retrieved from https://www.makehope.org/introduction/makehope/greeting/

local government summit forum. Her presentation, complemented by a keynote lecture on the “People-Thinking City” by Gil Penalosa, underscored the importance of citizen-centric urban planning strategies, drawing inspiration from successful ecological and cultural regeneration projects such as the TransMilenio Bus Rapid Transit system implemented in Bogotá in 1999 (Mokminhwan, 2012). This transit system significantly improved the city's public transport by reducing travel times, increasing safety, and decreasing air pollution through a public-private partnership that expanded the network to 12 lines and 1,500 buses, serving 1.5 million daily passengers.

Reflecting on her experience at the World Congress, Hong emphasized the transformative impact of sustainable development initiatives on urban life (Mokminhwan, 2012). Her observations illustrate how shared experiences and collective identity can shape and transform ideas through communicative processes (Mokminhwan, 2012). Her visit to Curitiba, renowned as an ecological city of dreams, offered her firsthand insights into how sustainable practices can enhance quality of life while minimizing environmental impact. She highlighted Curitiba's innovative waste management, air pollution control measures, and public transportation systems as exemplars of cost-effective, citizen-centric approaches to sustainability (Mokminhwan, 2012). Despite the differing backgrounds and challenges faced by Curitiba and Bupyeong-gu, she cognitively embraced these innovative solutions, recognizing their potential applicability and value (Mokminhwan, 2012).

Hong’s encounter with Jaime Lerner, the former mayor of Curitiba credited with its urban transformation, further reinforced to her the importance of citizen engagement

and inclusive policymaking in sustainable urban development (Mokminhwan, 2012). Lerner's advocacy for policies that resonate with citizens underscored the significance of grassroots support in driving sustainable change. From Hong's review and other accounts, it is clear that interaction, discourse, and shared identities act as catalysts for knowledge exchange and inspiration among local government leaders. Meetings and communication between these leaders play a pivotal role in fostering a culture of environmental consciousness and global cooperation within their jurisdictions.

Likewise, ICLEI has tried to expose local government heads to international forums and facilitate their participation in events like the Conference of the Parties (COP) (Interview 2). The interviewee recalled that "By taking local government heads to international conferences, ICLEI aims to inspire them and broaden their perspectives. Over time, this helps them develop an interest in climate and sustainability issues."

While the prospect of attending international conferences may initially seem daunting to local government heads, such participation may have a transformative impact in the long term. By immersing themselves in global discussions and networking opportunities, local leaders gain valuable insights into emerging trends and best practices in sustainability. Moreover, participation in international forums serves as an eye-opener, reinforcing the realization that global sustainability challenges extend far beyond singular events and require ongoing, proactive commitment at the local level (Interview 1, Interview 2).

Visiting Each Municipality – A Process of Persuasion

Examining the dynamics of local governments that influence their decisions to join ICLEI, it becomes clear that persuasive efforts are a primary driver. According to several interviews, the director of the ICLEI Korea Office strategically uses forums and meetings attended by non-member mayors to advocate for ICLEI membership (Interviews 1, 2, 3, and 10). Through persuasive dialogues and presentations, the director and vice director actively work to convince mayors of the benefits and opportunities associated with ICLEI membership. This process of persuasion and communication is crucial to encouraging non-member cities to join ICLEI.

Someone might question how ICLEI selects which municipalities to approach for membership and when. As far as I know, ICLEI strategically targets specific regions one at a time, such as the northern part of Gyeonggi Province, and distributes invitations to all municipalities within that area. They then organize an on-site information session where invited public servants—typically those with at least some interest in ICLEI's activities—gather to learn more about the organization. After attending the session, these officials return to their offices and introduce ICLEI to their team leaders. If the team leader is convinced, they seek approval from higher-ranking officials. Finally, once the mayor gives their endorsement, the municipality officially becomes a member of ICLEI.

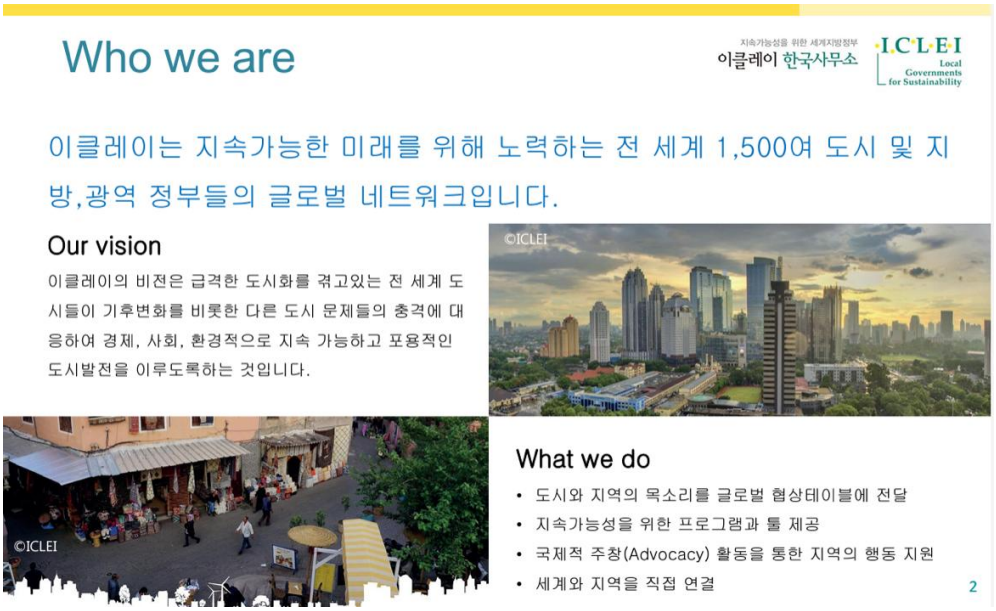

Figure 4.1 Slide introducing the ICLEI Korea Office to municipalities (ICLEI Korea Office 2018)

Figure 4.2 Slide introducing the ICLEI Korea Office to municipalities (ICLEI Korea Office 2018)

These slides illustrate how the ICLEI Korea Office presents itself to local governments considering ETMN participation. They are particularly valuable because

they represent one of the first points of exposure for public servants who may have been previously unaware of ETMNs and perhaps not highly engaged with climate issues.

This process typically unfolds in a top-down manner, with ICLEI engaging directly with mayors and heads of local governments, who hold significant decision-making authority within their jurisdictions (Interview 3). Once a mayor's interest is sparked, they often direct public officials to begin the formal process of joining ICLEI. Here are the interviewee's comments on this point:

> Many cities join ICLEI through their mayors. When ICLEI representatives meet mayors and explain their activities, especially initiatives related to global goals and international collaboration, they sometimes decide, "This is something we can do," and join.

Central to the persuasive efforts of ICLEI officers is the articulation of ICLEI's overarching vision, succinctly encapsulated in the phrase "local action moves the world" (Participant Observation). Engaging in participant observations provided me with a unique opportunity to immerse myself in the intricate process of facilitating Yeoncheon-gun's membership in key environmental transnational municipal networks (ETMNs) such as ICLEI, GCoM, and Cities with Nature. Over the course of my observation period, which spanned several months, I closely witnessed the various stages cities navigated to join these influential networks.

The selection of Yeoncheon-gun as a case study is justified by the ICLEI Korea Office's expectation that local leadership would be receptive to engagement. However, it remains unclear whether Yeoncheon-gun possessed specific characteristics that made it a particularly strategic target for ICLEI's outreach. One plausible explanation is its economic underdevelopment and the absence of carbon-intensive industries, with its

primary asset being its preserved natural environment, which is already recognized as a UNESCO-designated site and serves as a potential driver for tourism.

Notably, prior to my visit, city officials had limited awareness of ICLEI's existence. The primary rationale for selecting this local government as a case study is the unique opportunity it provided to observe the entire process of ICLEI membership—from initial awareness and decision-making to the implementation of climate initiatives—over an extended period from July 2023 to December 2024. This longitudinal perspective allows for an in-depth analysis of how a city with limited prior engagement in transnational climate networks navigates the process of joining and integrating ICLEI's frameworks into its governance.

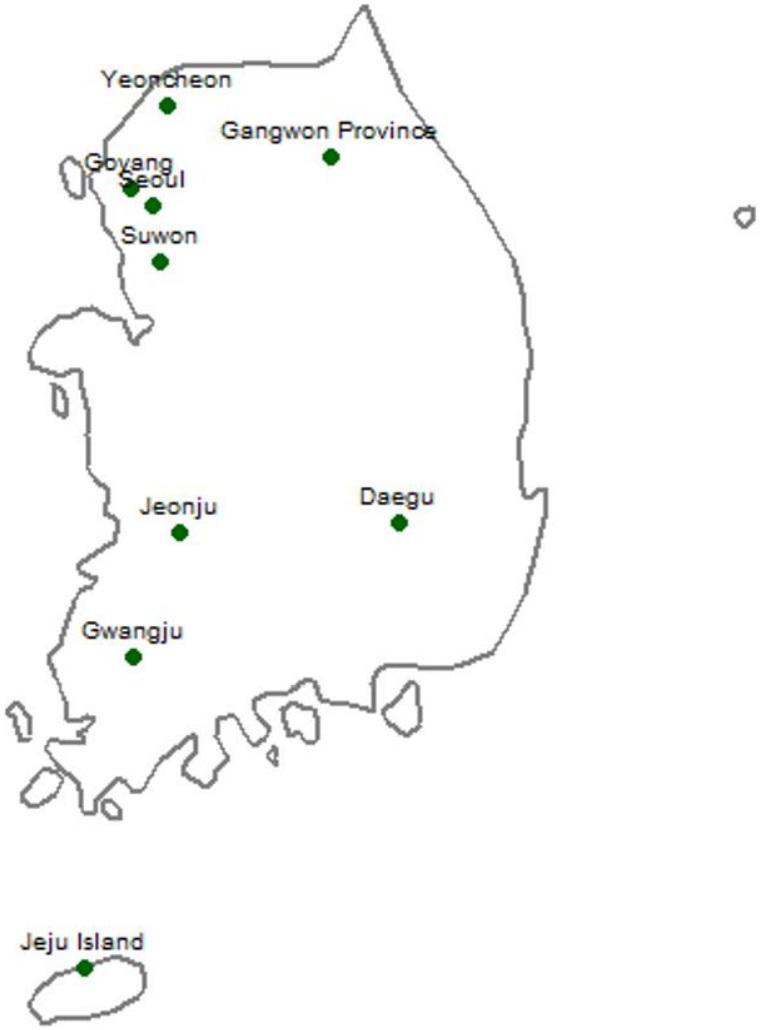

Figure 4.3: Map of Key Cities in South Korea

On July 28, 2023, I visited the public office of Yeoncheon-gun with a collection of pamphlets summarizing the visions of ICLEI, GCoM, and Cities with Nature. During a meeting with a team leader and an ecology expert, I persuaded them to join these networks by highlighting the tangible benefits of ICLEI membership, such as access to global networks, resources, and best practices. I emphasized the transformative potential

of local government engagement in global sustainability initiatives, stressing that Yeoncheon-gun could play a crucial role as a potential leader on the global stage.

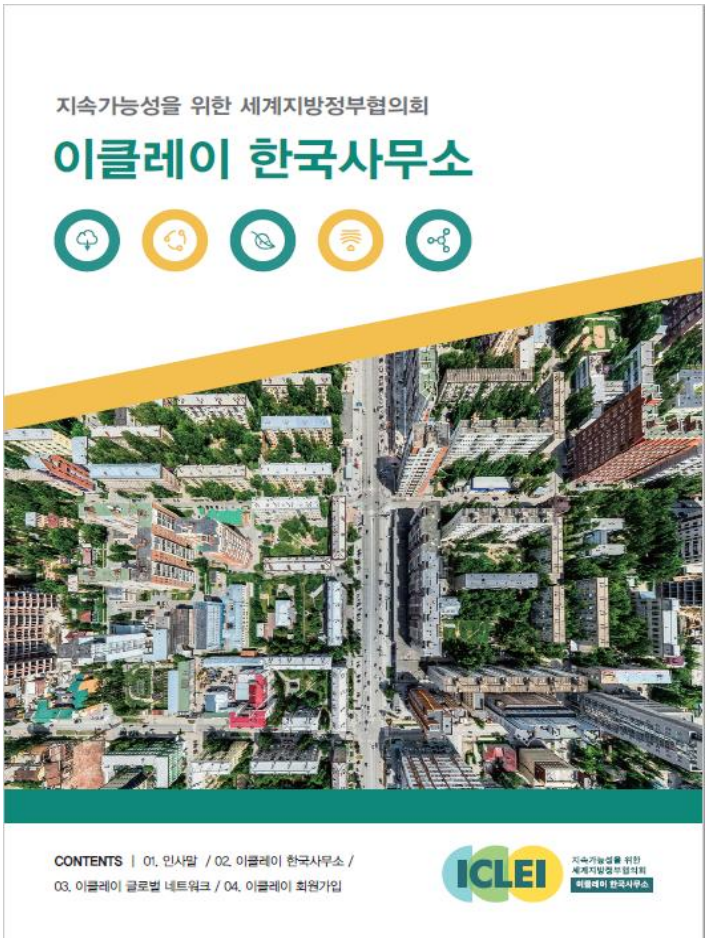

Figure 4.4 Pamphlet that I used to persuade Yeoncheon-gun to join ICLEI (ICLEI Korea Office, 2023)

In particular, I noted that if Yeoncheon-gun became a member of Cities with Nature, it would be the first city in South Korea to do so. I assured them that ICLEI would promote them as the inaugural leader of the Cities with Nature initiative. The team leader mentioned that such recognition would please the mayor. Moreover, Yeoncheon-gun, designated as a UNESCO preservation site, already had an image as a natural area that should be preserved. Joining ICLEI would complement this identity. After thorough,

persuasive conversations, the team leader and the expert agreed to participate in all three networks: ICLEI, GCoM, and Cities with Nature.

Figure 4.5 Yeoncheon-gun's Preservation Site - Hantan River (Kim 2020)

Figure 4.6 Ognyeo Peak in Yeoncheon-gun (Park 2019)

To gain deeper insights into the motivations, challenges, and strategies driving Yeoncheon-gun's commitment to ETMNs, I conducted in-depth interviews with key stakeholders in December 2023 and November 2024. These interviews took place six months and 1.5 years, respectively, after I successfully persuaded them to join. The interviews offered firsthand perspectives on the internal dynamics, decision-making processes, and external influences shaping Yeoncheon-gun's journey toward ETMN membership.

According to one interviewee, Yeoncheon-gun, characterized by a rich natural and cultural heritage, possesses valuable assets, including pristine landscapes and historical landmarks (Interview 11). However, the region's proximity to the border has limited its visibility and accessibility to international audiences (Interview 11).

The interviewee stated, “To effectively engage in UNESCO conservation activities, collaboration with specialized organizations was necessary, which led to the decision to join ICLEI.” In the next interview, the interviewee clarified that “While our efforts are centered around UNESCO-designated areas, ICLEI focuses on local governments. This led us to believe that ICLEI could facilitate policy implementation at the broader level of Yeoncheon-gun, which is why we joined. We aimed to create synergy by aligning ICLEI activities with UNESCO efforts.”

In response, local authorities in Yeoncheon-gun have adopted a proactive approach to raise awareness and attract attention to the region's diverse attractions. Central to this strategy is the goal of positioning Yeoncheon-gun as a destination for international events and organizations, thereby unlocking its potential as a global hub for

sustainable development and cultural exchange (Interviews 2 and 11). Joining ICLEI is seen as a strategic move for local governments, providing a platform to showcase their initiatives and best practices on a global stage (Interviews 2 and 11).

According to Yeoncheon-gun's mayor, joining ICLEI with the goal of attracting international organizations was a way for the region, which has had limited economic opportunities, to increase its population base (Interviews 2 and 11). Joining ICLEI was regarded as a strategic move that would also attract more visitors and foster a more vibrant community. The mayor's long-term strategy included fostering collaborative partnerships with neighboring jurisdictions, such as the Seoul Metropolitan Government, to promote reciprocal benefits and produce synergy. By encouraging residents of Seoul to spend weekends in Yeoncheon-gun, the governor envisioned creating a symbiotic relationship that would contribute to the region's economic vitality and social well-being. These potential benefits of ICLEI membership align with the hypothesis that cities may join ETMNs to enhance their reputations and visibility globally.

Additionally, some interviews revealed another compelling example that underscores the strategic importance of ETMN membership in enhancing a locality's international image. Jeju Island's decision to host the ICLEI Korea Office was also motivated by the strategic intent to elevate the island's international profile (Interview 1). By serving as the host location for ICLEI's regional office, Jeju Island sought to position itself as a leading hub for sustainable development initiatives, thereby enhancing its attractiveness to international partners and stakeholders.

The motivations for Yeoncheon-gun to join ECLEI included both economic and reputational benefits. While the mayor was driven by tangible economic incentives, other actors involved in the commitment process exhibited normative motivations centered around a genuine commitment to sustainability goals (Interview 12) and a desire to bring attention to the region. They resonated with the idea that "local action moves the world." These agents were conscious of the values and visions of the networks they joined.

Shared Ideas through Local Leaders

Not surprisingly, local issues take center stage in the priorities of local governments, reflecting their intrinsic understanding of the unique challenges and opportunities inherent to their respective regions. One interviewee highlighted the challenge of balancing the imperative to address immediate local needs with a desire to stay informed about global trends and developments (Interview 3). With myriad local issues demanding attention, keeping abreast of complex global affairs can indeed be daunting for local authorities. Moreover, while the news might offer glimpses into major international negotiations, grasping the intricacies and implications of such events requires deeper understanding and engagement (Interview 3). According to one ICLEI staffer:

> As [local government officials] are busy with domestic issues, they often find it difficult to follow global trends. ICLEI provides global standards and benchmarks for assessing and guiding their efforts.

This interviewee underscored the imperative for local governments to stay informed and knowledgeable about global issues, particularly those related to

sustainability, climate change, and international cooperation (Interview 3). By stressing the significance of this knowledge, ICLEI aimed to empower local leaders to stay informed as they navigated the complexities of the global landscape (Interview 3). This shows how ETMNs attempt to shift local governments' awareness and identities toward being more proactive and informed agents of this global trend.

Evidence gathered from numerous interviews indicates a gradual yet noticeable shift in local leaders' acknowledgement and embrace of global trends, particularly related to climate change (Interviews 1 and 2). There was an increasing awareness among these leaders of the changing global context and a corresponding resolve to align with these trends (Interview 1). According to one interviewee, this shift was driven by the recognition that climate change constitutes an existential crisis that necessitates proactive measures that go beyond central government interventions (Interview 2).

Alongside the increasing recognition of global challenges, a discernible shift in attention toward global solidarity movements can also be seen among cities and local governments (Interview 1). Compared with the central government, local governments demonstrate a heightened willingness to foster cooperation and solidarity across international borders. This is because the central government, with its centralized decision-making processes, may remain distant and detached from the day-to-day concerns of citizens, while local governments are deeply embedded in their communities, and may be more attuned to the needs, aspirations, and challenges faced by residents on a daily basis (Interview 1). This proximity to local issues fosters a heightened awareness of the interconnectedness of global challenges and the imperative for local action.

For instance, local leaders are addressing issues beyond climate change, such as poverty and youth unemployment, by fostering collaborative relationships with other local governments and/or international organizations (Interview 1). This intergovernmental and transgovernmental cooperation at the local level enables them to devise and implement effective solutions to these pressing challenges. A recent report provides an example:

> Gyeonggi Province announced that it will collaborate with the International Labour Organization (ILO) to share knowledge and exchange information in the fields of youth and labor policies by signing a Memorandum of Understanding (MOU) titled “Facilitation of Knowledge Sharing and Exchange on Youth and Labor Policies” at the ILO headquarters in Geneva, Switzerland. (Kim 2024)

One respondent indicated that while the central government's perception of the climate crisis may focus on surface-level indicators such as glacier melt or freeze patterns, local government leaders are increasingly attuned to the deeper, systemic nature of the crisis (Interview 1). Despite the inherent challenges of addressing complex global issues, including limited financial resources and varying levels of expertise, local leaders are compelled to confront the changing global landscape and adapt accordingly (Interview 1). Unlike the central government, local governments are nimble entities capable of making decisions with agility and precision, leading to more effective outcomes.

For instance, in 2020, when all 226 local governments in South Korea collectively declared their commitment to addressing the climate crisis, they transcended political affiliations. This collective action marked a significant departure from traditional political divides, indicating a shared recognition among local leaders of the urgency and gravity of

the climate crisis. One respondent noted that there is a prevailing notion among these local governments that significant cities like those in Gyeonggi province should align themselves with prominent global sustainability trends (Interview 2).

In this context, adhering to international standards and aligning with global initiatives such as those promoted by organizations like ICLEI becomes not only a strategic imperative but also a means of gaining deeper insight into global trends and best practices. Furthermore, this growing awareness is not confined solely to political leaders but extends to a broader spectrum of stakeholders within local communities, encompassing civil society organizations, academia, businesses, and citizens at large (Interview 6). Overall, there seems to be a significant paradigm shift among local leaders in South Korea, signaling growing recognition of the interconnectedness of global challenges and the imperative for collective action at the local level.

Local Leaders – Does Ideology Matter?

A prevailing sentiment among respondents underscores the pivotal role of political leaders, particularly mayors and heads of local governments, in shaping cities' commitment to ETMNs. According to many respondents, political leaders' inclination to align their cities with organizations like ICLEI is closely intertwined with their personal interests in environmental issues.

In essence, respondents emphasized that the influence of the local head of government is paramount, with these leaders' decisions accounting for approximately 90% of the commitment-making process. This sentiment was echoed by multiple

interviewees, who emphasized the decisive role of political leaders in determining the trajectory of local governments' engagement with ETMNs. Even when bureaucrats demonstrate enthusiasm and eagerness to commit to ETMNs, the ultimate decision rests with the head of the local government. If that leader expresses reluctance or disinterest, the commitment process comes to a halt, regardless of the enthusiasm exhibited by other officials. This dynamic underscores the hierarchical nature of decision-making in local government structures, where the stance of the local head of government holds significant sway over the city's strategic direction and engagement with external partners like ICLEI.

Consequently, the collective identity of a specific municipality often reflects the mayor's ideology. This phenomenon occurs because the hierarchical nature of decision-making within these entities typically translates the mayor's individual ideas into the municipality's shared ethos. In this context, the ideology and strategic inclinations of mayors are critical determinants in the decision-making process to join an ETMN. This underscores the influential role that individual leadership philosophies play in shaping municipal policies and affiliations.

From the perspective of groups like ICLEI, this hierarchical decision-making process highlights the importance of fostering alignment between the priorities and interests of political leaders and the objectives of ETMNs. Successful engagement of municipalities often necessitates building consensus and garnering support from local government heads, thereby emphasizing the need for ETMNs to engage in effective

advocacy and persuasion to convey the benefits and relevance of participation in such networks.

Another respondent provided further insights, underscoring the factors influencing mayoral engagement in the activities of ETMNs and the pursuit of various sustainability goals. According to this respondent, genuine interest from the mayor plays a significant role in determining the level of involvement and support for such initiatives (Interviews 1, 2, 3, 4, 5, 7, 8, 11, 13, 14, and 18). However, the respondent also emphasized that, in addition to the mayor's interest, the approval of the city or provincial council is essential, particularly due to the budgetary implications of participation in ETMNs and their activities (Interview 11). Membership entails an annual fee, and related initiatives, such as hosting international forums or other collaborative events, often require additional financial and staff resources. The necessity of city council approval reflects the complex bureaucratic processes inherent in local government decision-making, where multiple stakeholders, including elected officials and governing bodies, play a critical role in determining policy priorities and resource allocation (Interview 3). This complexity highlights the collaborative nature of municipal governance.

The respondent's insights shed light on the intricate interplay of political leadership, institutional dynamics, and budgetary considerations in shaping mayoral involvement in sustainability initiatives. By acknowledging the significance of mayoral interest and understanding, as well as the procedural requirements for securing approval, the respondent underscores the importance of building consensus and alignment among key stakeholders to drive collective action toward sustainability goals (Interview 3).

Interestingly, the qualitative evidence does not suggest that political ideology plays a decisive role in shaping mayors' commitment to global environmental cooperation. When asked whether ideological or political affiliation influences local governments' engagement with ETMNs, interviewees generally indicated that this was not a significant factor. Their responses do not support the assumption that affiliation with center-left or left-wing political parties necessarily predicts a municipality's decision to join ETMNs.

This qualitative finding contrasts with the results of the quantitative analysis, which indicates a broader correlation between political ideology and ETMN participation. One possible explanation for this discrepancy is the limited scope of respondents' observations. When asked about ideological influences, interviewees may have drawn from a small number of personal experiences rather than considering a wider empirical pattern. In contrast, the quantitative analysis, which examines a comprehensive dataset across multiple cases, suggests that ideology does play a role at a broader level, even if it is not always perceptible in individual cases.

The Case of Goyangsi

Although the mayors or heads of local government are critical agents in determining whether a municipality will join an ETMN, given the hierarchical decision-making process, other agents like public servants also play a role.

Goyangsi is a representative example that illustrates the power of public servants. In Goyangsi, one public official has a doctoral degree in climate science. This

intersection of academic expertise and public service underscores the pivotal role individuals with specialized knowledge play in driving climate action at the local level. The public official's journey from academia to public service highlights the increasing recognition of the importance of scientific expertise in informing policy decisions and shaping government responses to climate change.

Prior to her involvement with ICLEI, this public official recognized the city's need for external support and expertise to address climate-related challenges (Interviews 2 and 9). The success of the city's proactive approach to seeking assistance from ICLEI, even as non-members, underscores the ETMN's willingness to support local governments in their efforts to combat climate change, regardless of those governments' membership status. In other words, ICLEI's decision to assist Goyang-si, despite the city's non-member status, illustrates a commitment to fostering collaboration and supporting climate initiatives beyond the organization's formal membership structures.

One respondent said,

> In the case of Goyang City, I understand that public official Park Soon-young persuaded the mayor to join ICLEI. They probably did a lot before joining. So, there might have been no choice but to join. There were likely events held with the mayor, and they might have done something big like hosting an urban forum. This would have been something the mayor participated in (Interview 2).

Furthermore, the outcomes resulting from this interaction—namely, Goyangsi's subsequent decision to become a member of ICLEI—highlight the tangible benefits of engagement with transnational municipal networks. By joining ICLEI, Goyangsi gained access to resources, networks, and opportunities for collaboration, enabling the city to amplify its impact and accelerate its progress on climate goals.

The active involvement of Goyangsi public servants in ICLEI seminars illustrates the organization's impact and effectiveness at supporting local governments in their efforts to address climate change. By actively participating in ICLEI-held seminars and sharing their positive experiences with other local governments, Goyangsi public servants played a crucial role in promoting the benefits of engagement with ICLEI and encouraging broader participation in the organization.

One public official said during the seminar held by ICLEI,

> "Our Wetland Ecology Team faced some difficulties in our work, but around late June, ICLEI arranged a small meeting related to that issue. We had been struggling with a particularly challenging problem, and it wasn't easy to directly visit the Ministry of Environment or meet the relevant officials. As you may know from experience, these officials are busy, and it's difficult to coordinate. Fortunately, ICLEI recognized our problem and helped resolve it by facilitating a meeting with the Ministry of Environment official, something we had been trying to arrange for a year without success."

Through their firsthand experiences with ICLEI, Goyangsi public servants have come to appreciate the support and assistance that the organization provides in navigating complex global cooperation and international agenda issues.

By actively promoting ICLEI's services and capabilities to their peers, Goyangsi public servants not only highlight the tangible benefits of engaging with the organization but also inspire others to consider partnering with ICLEI. Through word-of-mouth recommendations and firsthand testimonials, they foster a culture of collaboration and knowledge-sharing among local governments, encouraging others to draw on ICLEI's expertise and resources to address shared challenges more effectively. Ultimately, this functions as a persuasive process in itself.

In this way, the proactive engagement of Goyangsi public servants serves as a catalyst for broader participation in ICLEI and the collective pursuit of sustainable development goals. By leveraging their firsthand experiences and advocacy efforts, they inspire a network of local governments to harness the power of collaboration and partnership with organizations like ICLEI, ultimately driving collective action and progress toward a more sustainable and resilient future for all.

ICLEI officials are active agents, increasing the organization's visibility and engagement with municipalities. Their efforts include regular visits to provincial governments and proactive outreach to public servants, particularly newly appointed officials, to familiarize them with ICLEI's mission and offerings. This outreach is conducted on a recurring basis, typically every one to two years, and involves both direct communication and the organization of seminars in which public officials are invited to participate. The goal of these efforts is not only to introduce the organization but also to ensure that each new cohort of public officials is well-informed about how they can harness ICLEI's extensive resources, global networks, and technical expertise to further sustainability initiatives within their respective jurisdictions. Through this continuous engagement, ICLEI seeks to embed its mission into the operational priorities of local governments and foster a deeper understanding of the potential benefits of international cooperation in advancing local sustainability goals.

Municipalities that want to exit ICLEI

During my participant observation, I encountered several municipalities that expressed a desire to withdraw from membership in ICLEI. In response to this situation, ICLEI typically employed two distinct strategies. The first approach was directly persuading the public servant or local leader to reconsider. This method relied heavily on engaging with the leader's values and priorities, emphasizing the importance of sustainability initiatives and their long-term benefits for the community. The second, more passive approach was to wait for a change in local leadership, with the hope that the incoming leader would exhibit a stronger, more genuine commitment to environmental issues.

One ICLEI staffer shared the following:

> "For cities considering withdrawing from ICLEI, representatives meet with the mayor to discuss their reasons for withdrawal. However, arranging such meetings can be challenging, leading to delays in the withdrawal process. Changes in mayors or officials may eventually reverse these decisions, so withdrawal cases are often held in abeyance (Interview 3)."

In both approaches, the persuasive process is crucial. Even in cases where the strategy is to wait for a new leader, it is important to continue raising awareness of the importance of sustainability. A local leader's personal beliefs, priorities, and level of commitment to environmental concerns play a significant role in determining the municipality's engagement with ICLEI and its overall sustainability agenda. Thus, the success of these strategies often hinges on ICLEI's ability to effectively communicate the long-term value of membership, and the organization's capacity to align these initiatives with the local leader's vision for the community.

4.3.2 Local Government Capacity

The Order in Which Cities Joined ICLEI Korea

The historical context of the establishment of ICLEI's Korea office reveals the complex interplay of decentralization dynamics and central government policy influences. Following democratization in 1987, the central government played a pivotal role in facilitating the participation of key cities in ICLEI, an priority that fit with the broader national agenda of decentralization. (A more detailed exploration of the relationship between the central and local governments is provided in Chapter 6.)

Insights from an expert in ICLEI history highlight that the global policy initiatives spearheaded by President Kim Youngsam significantly contributed to ICLEI's early establishment in Korea (Interview 1). During the period when local autonomy was still in its infancy and decentralization had not yet fully taken hold, cities like Daegu, Gwangju, Jeju, and Busan were integrated into ICLEI under the directive of the central government. This reflected the governance structures of the time, in which local governments had limited autonomy and often adhered to the recommendations or directives of the central authority. Despite the nascent state of local self-governance, these cities took initial steps toward engaging with ETMNs such as ICLEI, which marked the beginning of their involvement in global environmental governance.

Busan, Gwangju, and Seoul, which have large populations and significant institutional capacity, were among the earliest to join ICLEI. Population size and density, often used as proxies for municipal capacity, seem to have been important factors in determining early membership in ICLEI. This suggests that cities with greater

institutional resources were better positioned to engage in international environmental initiatives, especially during ICLEI Korea's formative years. However, this pattern did not necessarily extend into the long term, as smaller municipalities with lower populations and population densities have also become members of ICLEI over time. This evolution indicates that while institutional capacity may have influenced early membership, it is not the sole determinant of involvement in ICLEI.

Therefore, it might be most accurate to conclude that cities with larger populations and greater institutional capacity were early adopters of ICLEI, driven by their ability to align with central government initiatives and leverage their resources. However, the gradual inclusion of smaller municipalities illustrates the broadening accessibility of ICLEI membership, reflecting the organization's evolving role in accommodating a wider range of municipalities with different sizes and capacities. This shift underscores the dynamic nature of transnational municipal networks and the various factors that influence cities' engagement with them over time.

Another perspective on the issue of capacity suggests that municipalities with greater institutional capacity may more easily afford and sustain the membership fees required to join and remain part of ICLEI. The assumption is that local governments with more resources have fewer financial constraints and therefore may be more inclined to participate in international networks such as ICLEI. However, this assumption was proven incorrect. According to the Director of ICLEI, along with insights from other interviewees, the membership fee is not a decisive factor influencing a municipality's decision to join or maintain membership in ICLEI (Interview 10).

The explanation for this lies in the structure of ICLEI's membership fees, which are determined proportionally based on both a municipality's population size and its regional budget. This proportional fee structure ensures that even small, resource-poor municipalities are not unduly burdened by the financial obligations of membership in ICLEI. As a result, financial capacity, particularly as it relates to the ability to pay membership fees, does not significantly impact a municipality's decision to participate in ICLEI.

This insight challenges the assumption that wealthier and more resource-endowed cities are inherently more likely to engage in international environmental networks due to their ability to afford the costs associated with such memberships. Instead, ICLEI's approach to membership fees highlights a model that accommodates municipalities of varying sizes and financial capacities, thus fostering inclusion across different types of local governments. This system ensures that the decision to participate in ICLEI is driven more by strategic alignment with sustainability goals than by financial considerations.

Contrary to the expectation that municipalities with greater capacity are more inclined to join ICLEI, evidence suggests that local governments with limited capacity are often the ones actively seeking out ICLEI membership to benefit from the organization's resources and support. These municipalities approach ICLEI to leverage its expertise and networks, and this involvement in turn facilitates their decision to join the organization.

The cases of Goyang-si and Yeoncheon-gun illustrate this dynamic. Goyang-si sought assistance from ICLEI to gain the necessary knowledge and resources to organize

an international forum, while Yeoncheon-gun joined ICLEI with the aim of enhancing its reputation and attracting resources, including population growth. These examples highlight that municipalities with fewer internal resources may view ICLEI membership as a strategic means of bolstering their capacity and achieving broader developmental goals.

Therefore, the hypothesis that cities with greater institutional capacity are more likely to join ICLEI is not strongly supported by the data. Instead, the findings suggest that municipalities with limited resources are equally, if not more, motivated to engage with ICLEI in order to enhance their institutional capacity and benefit from the international exposure and assistance the organization provides. This indicates a reversal of the anticipated relationship between capacity and ICLEI membership, with less-capable municipalities using membership as a tool for capacity-building rather than as a reflection of existing strength.

This finding aligns with the quantitative results, which show that population size does not significantly impact network participation and that economic capacity (GRDP per capita) is not a significant predictor of ICLEI membership in South Korea. These results suggest that financial resources alone do not necessarily translate into higher engagement with ETMNs, reinforcing the idea that cities may join such networks not because they are already well-equipped, but because they seek support to strengthen their governance and sustainability efforts.

4.3.3 Climate Vulnerability

Enrollment driven solely by concern over climate change vulnerability is rare. Conversations with various stakeholders revealed that local governments seldom cite explicit concerns about climate vulnerabilities when initiating discussions with ICLEI (Interviews 2 and 3). One ICLEI staffer said, “There are no cases where cities joined ICLEI due to vulnerability to climate change. Many people still do not fully recognize the seriousness of climate change, instead perceiving population decline as a more pressing issue.” Another interviewee stated, “There are still no cities that view climate vulnerability as their primary concern. Instead, most cities see population decline as their biggest issue, followed by economic concerns.” These consistent responses underscore a broader pattern observed across Korean municipalities. Instead of prioritizing climate-related concerns, local governments often focus on other issues such as population decline (Interviews 1, 2, and 3).

Rather than adopting a proactive stance toward climate action, the discourse within civil service circles seems to lack genuine awareness or concern regarding climate change (Interview 2). This perception extends to mayors as well, suggesting a systemic issue where climate change is not prioritized as a critical agenda item.

Yeoncheon-gun's decision to join ICLEI was not driven by concerns over climate vulnerability. Instead, the municipality’s primary focus, like those of many others in South Korea, has been addressing population decline, which remains the most pressing issue for local governments (Interviews 2 and 18). While climate change is increasingly recognized as a significant risk, this awareness is developing gradually and has not yet

surpassed more immediate socio-economic concerns, such as demographic challenges. However, the growing recognition of climate change as a real and pressing risk may lead to a shift in priorities over time, potentially influencing cities' future decisions to join transnational environmental networks.

The quantitative analysis supports this finding. Population density has a slight negative effect on ICLEI membership (-0.0000617) but a small positive effect on GCoM membership (0.000078) in South Korea. Since denser cities tend to face greater climate risks, these results indicate that higher climate vulnerability does not necessarily drive participation in ETMNs. This quantitative evidence aligns with the qualitative data, reinforcing the idea that immediate socio-economic factors, rather than climate risk alone, often shape municipalities' decisions to engage with global environmental networks.

4.3.4 Overall Limitations of ICLEI activities

While ICLEI has succeeded at persuading municipalities to join ICLEI, providing information about global trends, and holding international forums, all organizations have their limitations and failings. From a critical perspective, ICLEI's approach to local leadership and sustainability practices is somewhat constrained by its operational model and the inherent challenges of working across diverse municipal contexts.

One significant limitation lies in ICLEI's approach, which is primarily focused on disseminating successful case studies and best practices among its member municipalities. While this strategy has the advantage of showcasing exemplary cases of

sustainability, it also results in a narrow focus where only a select few stories gain prominence. This emphasis on the most polished and successful examples can inadvertently create a skewed perception of what effective local action on sustainability entails. As a result, many innovative but less-publicized efforts, particularly those from smaller or less-resourced municipalities, may not receive the recognition or support they deserve. This selective highlighting of case studies could lead to an overrepresentation of success stories from larger, more affluent cities, thereby overshadowing the diverse and varied experiences of other member cities. Consequently, the potential for knowledge sharing and mutual learning across the network may be diminished, as valuable insights from less prominent cities are overlooked.

Moreover, ICLEI's recognition and influence among local governments and public officials remain limited. Despite the organization’s efforts to establish itself as a key player in global sustainability governance, its reach is not as widespread as it could be. Several factors contribute to this limitation. Firstly, there is the issue of awareness; many local government officials and public servants are simply unfamiliar with ICLEI or its mission. This lack of awareness is particularly pronounced in regions where ICLEI has not yet established a strong presence or where competing organizations and initiatives dominate the environmental governance landscape. The result is a missed opportunity for ICLEI to expand its network and increase its influence by attracting new members who could benefit from its programs and initiatives.

Another limitation related to ICLEI’s model is the potential for member cities to engage in “greenwashing”—the practice of promoting environmentally friendly policies

or practices more as a public relations strategy than out of a genuine commitment to sustainability. Cities that join ICLEI or similar networks primarily to enhance their public image or to attract funding may fail to implement meaningful environmental changes. Such greenwashing can erode the trustworthiness and integrity of the network, as it may lead to a situation where cities are recognized for their membership rather than for their actual contributions to sustainability.

In line with this approach, there was a case where ICLEI was hesitant to reach out to Hanam-si to encourage its membership. When I inquired about the reason and offered to visit as a researcher to facilitate the process, ICLEI Korea officers declined my suggestion. I assume they were waiting for the right moment, such as an opportunity for the director to meet with the mayor or to strengthen their working relationship with Hanam-si's public servants. Ultimately, their strategy seems to be deeply rooted in human dynamics, carefully timing their approach to maximize the likelihood of a successful engagement. I had hoped to observe ICLEI's unsuccessful recruitment attempts—cases where cities ultimately chose not to join—but unfortunately, I was not able to gain access to such instances.

4.4 Conclusion

Both qualitative and quantitative analyses indicate that political orientation significantly influences local governments' participation in ETMNs such as ICLEI and GCoM. The quantitative findings show that Democratic-leaning cities in the U.S. and progressive-leaning cities in South Korea are 42.8% and 56.2% more likely to join

ICLEI, respectively. However, qualitative data complicate this conclusion, as interviewees in South Korea emphasized that mayors' personal leadership styles and individual interest in sustainability often play a more decisive role than partisan alignment. The gap may result from respondents' limited personal perspectives, while the broader quantitative analysis reveals political ideology's significant macro-level influence.

Another key point of convergence between the two analyses is the role of geography and climate vulnerability in ETMN participation. The quantitative findings highlight that in the U.S., coastal location significantly increases GCoM membership by 25.97%, reinforcing the idea that cities facing heightened climate risks are more likely to engage in transnational sustainability networks. However, South Korean data does not show a similar trend, with population density and local governance autonomy playing minor roles instead.[2]

This aligns with qualitative evidence, which indicates that South Korean municipalities rarely cite climate vulnerability as a motivation for joining ICLEI. Instead, concerns such as population decline, economic incentives, and international visibility often take precedence. The case of Yeoncheon-gun, for instance, demonstrated that the city's primary motivation for joining ICLEI was to enhance its international reputation and attract resources, rather than climate concerns.

[2] I did not control for coastal cities in the South Korean quantitative analysis because, unlike in the U.S., coastal cities in Korea do not experience the climate crisis as severely. This may be due to South Korea's smaller geographic size, which results in less variation between coastal and inland cities.

Institutional capacity presents another area where the two analyses complement and contrast each other. The quantitative analysis suggests that city size and economic capacity are not strong predictors of ETMN membership in either the U.S. or South Korea, contradicting the assumption that wealthier or larger cities are more likely to join. The qualitative findings provide further nuance by illustrating that cities with lower institutional capacity actively seek ICLEI membership to gain access to technical expertise and resources. The case of Goyang-si, where a climate science-trained public official successfully advocated for membership, highlights how individual bureaucrats—not just mayors—can influence a city's decision to join. This finding suggests that municipalities with limited internal expertise may use ICLEI as a capacity-building mechanism, a factor not fully captured in the statistical models.

Moreover, the qualitative analysis examines the persuasive role of ICLEI itself in driving municipal membership. The qualitative research highlights how ICLEI actively recruits cities through direct outreach, training programs, and conference participation, often targeting mayors and local government officials with strategic messaging. The quantitative data, however, does not measure this persuasive process directly. The case study of ICLEI Korea's recruitment of Yeoncheon-gun, where officials were persuaded by the prospect of international recognition, underscores the importance of strategic positioning and external persuasion in ETMN membership decisions.

One key divergence between the two analyses concerns ideological influence on C40 membership. The quantitative findings reveal that, unlike ICLEI and GCoM, C40 membership in the U.S. is negatively correlated with Democratic political alignment (-

5.19%), suggesting that economic and strategic considerations outweigh ideological commitments in this network. The qualitative analysis does not directly address C40, but the case of Jeju Island hosting the ICLEI Korea office for international prestige aligns with the idea that some municipalities engage in ETMNs primarily for branding and economic positioning rather than ideological alignment. This divergence suggests that while political progressivism is a strong predictor for some ETMNs, others, like C40, operate under different incentives.

Ultimately, this synthesis highlights that political alignment remains a critical factor in ETMN participation, but it is not the sole determinant. Individual leadership, institutional capacity, geographic factors, economic considerations, and external persuasion all interact in shaping local governments' decisions. The quantitative analysis establishes broad patterns, showing that progressive cities and coastal locations correlate with higher ETMN engagement, while the qualitative research provides the necessary context to explain why some cities deviate from these patterns. Together, these insights suggest that a combination of political, economic, and strategic factors—not just climate vulnerability—drives municipal engagement with transnational climate networks.

Part II

The Consequences of Joining ETMNs

Chapter 5 Utilizing ETMNs after joining ICLEI

5.1 Introduction

Part II delves into the dynamics and implications of cities and states participating in ETMNs, exploring the factors that influence the effectiveness of integration in these networks and the interactions between cities and their respective states. By analyzing the interactions between cities and states, this section seeks to illuminate the broader implications of ETMN membership for both local and national governance.

Chapter 5 scrutinizes the determinants of ETMN member cities' varying levels of success at implementing climate change policies, employing qualitative case studies of South Korean municipalities. The case studies provide a deeper, contextual understanding of how local political factors shape the implementation of climate initiatives in South Korea.

Member cities' level of participation following their affiliation with ICLEI varies significantly. For instance, several local governments that belong to ICLEI Korea, including Shinan County (2023), Suwon Special City (2022, 2021), Seodaemun District (2021), and Dangjin City (2020), have actively published Voluntary Local Reviews (VLRs) based on their sustainable development reports.[1] Notably, Shinan County issued its first VLR last year, "Shinan-gun Sustainable Development Management Report (SDGs, ESG History of Shinan-gun, 2016-2021)," which emphasized the importance of

[1] A VLR (Voluntary Local Review) is a voluntary assessment of the implementation of sustainable development goals (SDGs) by local governments. ICLEI's Korea Office encourages member municipalities to write VLRs.

preserving tidal flats, wind, and sunlight while enhancing their economic value. The report underlined that the key to Shinan County's sustainable development lies in safeguarding tidal flats from development and reclamation and transforming them into land with potential value.

Suwon Special City also released its second VLR, the "2022 Suwon Sustainable Development Report." Suwon has been ahead of the curve, setting 2030 SDGs and implementing a foundational sustainable development ordinance well before similar national measures were instituted. For over two decades, the city has pursued sustainable development policies, and its report outlines everything from 2030 goals to evaluation metrics, outcome monitoring procedures, and future plans. In contrast, other cities such as Gapyeong, Siheung, Anyang, Osan, and Icheon have not engaged in such activities since joining ICLEI.

This variation prompts a series of critical questions: What impact does joining ETMNs have on cities' climate policies? What factors differentiate cities that demonstrate a strong commitment to climate protection—those that are capable of effectively implementing and sustaining policies—from those that encounter significant challenges in policy execution? In essence, what are the contributing factors to cities' varying degrees of success at enacting, implementing, and assessing climate change policies after they have committed to the ICLEI program?

Exploring the impact of joining ETMNs is crucial not only for understanding the effectiveness of these networks at driving change at the local level but also for determining the broader implications of such engagements for global climate governance.

By examining the pathways through which cities either excel at meeting their climate commitments or struggle to meet their objectives, this chapter seeks to identify the underlying factors that enable or hinder successful policy implementation. By identifying best practices, success stories, and areas where cities face challenges, this chapter contributes to a better understanding of how ETMNs can be optimized to facilitate the enactment and evaluation of climate policies at the municipal level.

One typically assumes that entry into an organization is undertaken with some anticipation of its effects. However, selection and the effectiveness of ETMNs can interrelate in ways that highlight the selection effect—the idea that cities choosing to join ETMNs may already be predisposed to certain levels of climate action rather than being fundamentally transformed by their membership. Cities with strong institutional capacity, political will, or pre-existing sustainability commitments may be more likely to engage actively, while others may join primarily for symbolic reasons or external legitimacy without substantial follow-through. Disentangling this selection effect is inherently challenging, as this chapter focuses on cities that have already joined these networks, without fully accounting for whether their participation stems from a pre-existing commitment to climate action. This limitation underscores the difficulty of determining whether ETMNs drive meaningful policy changes or simply attract cities that were already inclined toward sustainability.

To summarize the main findings, the analysis underscores the crucial role of proactive civil servants in overcoming systemic barriers and ensuring institutional continuity—an aspect largely overlooked in existing literature. In South Korea, the

frequent turnover of public officials and rigid administrative structures hinder long-term engagement in ETMNs. However, dedicated individuals, like a key civil servant in Jeonju, demonstrate how sustained leadership and expertise can drive meaningful progress despite these challenges.

This shifts the focus from external motivators (e.g., financial contributions or event participation) to the internal dynamics essential for the longevity and effectiveness of ICLEI partnerships. Moreover, the findings challenge the assumption that financial investment and periodic event attendance alone guarantee high levels of engagement in ICLEI.

In a nutshell, I hypothesize that the probability of witnessing improved performance in climate action subsequent to joining an ETMN is significantly elevated when a public official serves as a dedicated environmental policy entrepreneur, maintaining specialized expertise and remaining stable in their role as the city's bureaucracy experiences turnover. This stability makes it easier for a city to implement and sustain these policies over the long term.

5.2 Literature Review – Key Drivers of the Effectiveness of Joining ETMNs

More studies have explored the factors that influence membership in ICLEI than cities' achievement of ICLEI program milestones after becoming members (Reams et al. 2012). Pitt's (2010) analysis indicates that cities are more likely to meet ICLEI program objectives if their residents express higher levels of general environmental concern, if

city government staff members are dedicated to climate issues, and if they are geographically proximate to other cities engaged in local climate planning. Interestingly, Pitt (2010) found that demographic factors such as residents' education and income levels, voting history, and whether a municipality is a college town have minimal impact on a city's progress toward meeting ICLEI milestones.

In a related study, Sharp et al. (2011) explored the factors that influence membership in ICLEI and the achievement of program milestones among cities with populations exceeding 100,000. Their final sample included 122 cities, 47 of which were ICLEI members as of the summer of 2009. The results of the study revealed that the factors driving ICLEI membership are not the same as those that contribute to the successful achievement of program milestones. Notably, the length of ICLEI membership emerged as the most significant predictor of milestone achievement, underscoring the importance of sustained participation in environmental governance networks. This distinction suggests that while certain factors may initially encourage cities to join ICLEI, the long-term success of these cities in advancing climate protection goals correlates with continued engagement with the organization's programs.

Reams et al. (2012) conducted a comprehensive study of 257 member cities in the United States to evaluate their success at achieving ICLEI program milestones and to identify factors contributing to the variation in performance among member cities. The research considered potential influences such as the socioeconomic, political, and ideological characteristics of residents, the length of ICLEI membership, the presence of other climate programs within the state, and local environmental pressures. The results of

their multiple regression analysis underscored that the length of ICLEI membership is the most significant predictor of milestone attainment, independent of local socioeconomic conditions, residents' ideological and political orientations, and the presence of other climate-related initiatives.

Together, these findings suggest two arguments regarding factors that enhance cities' success in meeting ICLEI goals. The first argument suggests that cities are more likely to achieve ICLEI program milestones when they possess specific supportive conditions: higher levels of environmental concern among residents, a dedicated climate-focused city staff, and proximity to other climate-engaged cities (Pitt 2010). These factors appear to foster an environment where climate goals can thrive due to both local support and networked regional efforts. The second argument highlights the importance of sustained commitment, as the length of ICLEI membership emerges as a vital predictor of milestone achievement. Both Pitt (2010) and Reams et al. (2012) suggest that continued involvement in ICLEI programs plays a key role in advancing climate goals, potentially outweighing the influence of local socioeconomic or political factors. This emphasis on long-term membership underscores that a city's consistent engagement with ICLEI can be critical to successfully reaching the program's climate objectives.

5.3 Theory – Better performance of member cities

I argue that cities see marked improvement in climate action after joining ETMNs like ICLEI, particularly when certain enabling conditions are in place. My findings align with the broader literature, especially in highlighting the critical role of dedicated

climate-focused city staff. Central to this success is the presence of a proactive policy entrepreneur (often a dedicated public servant) within the local government—a leader with the vision, authority, and commitment to advance climate initiatives despite bureaucratic hurdles. This chapter further explores the mechanisms that drive better performance among ETMN member cities through two case studies: one on cities that have maintained climate practices through leadership transitions and another on cities that faced setbacks in climate action following similar transitions.

Theoretically, South Korea's bureaucratic structure moderates the extent to which ETMN membership translates into tangible policy outcomes, primarily due to its high turnover rate and compartmentalized administrative culture. Public officials, particularly in central government ministries, undergo rotations every two to three years—a system designed to prevent bureaucratic stagnation but one that often disrupts policy continuity and weakens institutional memory. The civil service follows a dual-track system: the competitive examination track, where officials rotate frequently, and the special appointment track, which recruits specialists in fields such as law, economics, and diplomacy for renewable five-year terms.

Compared to those in the competitive examination track, personnel in the special appointment track tend to maintain longer-term relationships with ETMNs, fostering greater policy stability. Consequently, the moderating effect of bureaucratic structure is more pronounced in the competitive examination track, where high turnover rates limit continuity and institutional engagement with ETMNs.

In addition to frequent turnover, South Korea's bureaucracy is characterized by *kanmagi* (compartmentalization), which limits cross-departmental collaboration. Public officials tend to operate within rigid silos, focusing strictly on their assigned responsibilities without broader engagement. This administrative structure—marked by both high turnover and compartmentalization—can moderate the effectiveness of ETMN membership by restricting continuity in policy initiatives and hindering cooperative efforts across different sectors.

One could argue that the factors influencing the effectiveness of ICLEI membership are not unique to network affiliation but rather reflect a city's overall capacity to address climate change. For example, a municipality led by a long-term, dedicated climate policy leader may achieve significant environmental progress regardless of ICLEI membership.

Measuring the precise marginal impact of ICLEI participation is inherently challenging, as it is difficult to attribute specific environmental outcomes solely to ETMN membership. To navigate this complexity, I adopt a more practical approach by examining how municipalities actively engage with ICLEI—focusing on the concrete activities, initiatives, and events in which ICLEI plays a direct role.

Therefore, in my analysis, I examined instances where ICLEI was at least mentioned or acknowledged in municipal activities. Admittedly, the impact of ICLEI membership does not appear to be "overwhelmingly" significant in driving climate action, with the exception of the Suwon case, which I will discuss in section 5.4.1. Rather than directly shaping municipal climate policies, ICLEI primarily functions as a

facilitator by organizing international forums, connecting mayors to global events like COP, and providing platforms for cities to develop and manage their monitoring systems. In this sense, ICLEI acts as a conduit, helping cities access resources and opportunities that might otherwise be difficult to secure, such as inviting expert speakers or hosting international forums.

This is not to say that ICLEI is irrelevant—its role in fostering global engagement and capacity-building is valuable—but it may be unrealistic to expect ETMNs to single-handedly drive significant climate policy changes within cities. Instead, their role should be seen as complementary to other factors such as local political leadership, funding mechanisms, and regulatory frameworks, which are likely to play a more decisive role in shaping climate policies.

5.4 Analysis

Cities such as Daegu, Dobong-gu, Suwon, and Jeonju serve as good examples of the progress that can occur after a city joins ICLEI. In contrast, some ICLEI member cities, including Gwangju and Gangwon Province, have demonstrated less commitment to achieving climate goals, and interviews reveal that negative dynamics exist between the ICLEI Korea Office and these cities (Interview 6). The intended establishment of an ICLEI office in these locations was ultimately canceled, fostering negative sentiments toward ICLEI. This subsection aims to elucidate the internal dynamics that led to these differing outcomes among member cities.

Importance of Mayors' Interest

Among the local governments actively engaged in ICLEI, a common thread emerges: the vested interest of mayors or heads of government fosters global collaboration on sustainable development and climate change initiatives (Interviews 1, 2, 3, 4, 5, 7, 8, 11, 13, 14, and 18). A political leader's commitment often stems from firsthand experiences that provide them with the necessary insight and acumen to effectively spearhead such endeavors in their communities. Take, for instance, the proactive involvement of mayors from Suwon, Dangjin, Gwangmyeong, and Shinangun, whose cooperative spirit underscores their dedication to advancing sustainability agendas at the local level (Interviews 2, 5, 8, and 10). Their leadership not only serves as a catalyst for meaningful change within their respective jurisdictions but also exemplifies the vital role that local government plays in tackling pressing global challenges.

For instance, in November 2022, Dangjin participated in the 27th UN Climate Change Conference (COP27) held in Sharm El-Sheikh, Egypt, as a representative Korean city invited by ICLEI (Kim, 2022). Deputy Mayor Kim Young-myung introduced Dangjin's sustainable development policies and its hydrogen city initiative, which gained international attention (Kim, 2022). In May 2022, Mayor Kim Hong-jang attended the ICLEI World Congress and presented Dangjin's achievements, including its citizen-led sustainability report, bicycle challenge initiative, and carbon-neutral municipal building practices (Cheong, 2022). These efforts highlighted Dangjin's commitment to sustainability on the global stage.

Local governments that actively engage with ICLEI proactively seek support and resources from the organization to bolster their sustainability efforts. This proactive stance encompasses various actions, such as reaching out to ICLEI for guidance and assistance, soliciting case studies from other cities worldwide to glean insights and best practices, seeking logistical support to host international conferences, and even venturing abroad to enhance the municipality's capacity and knowledge base through training and collaboration opportunities (Interview 3).

ICLEI's recommendations and invitations to participate serve as a litmus test that can be used to gauge the commitment of local governments to sustainability initiatives. Those municipalities that readily embrace ICLEI's suggestions and enthusiastically participate in the activities and conferences it promotes demonstrate a proactive stance toward sustainability. This proactive engagement, often characterized by a willingness to collaborate and implement the recommended strategies, is indicative of a local government's dedication to advancing sustainable development goals in their communities. By embracing these opportunities to collaborate and share knowledge, these municipalities not only enhance their own capacity but also contribute to the broader global effort to address climate change and foster sustainable development.

In assessing the factors that influence a local government's level of engagement with ICLEI activities, numerous respondents highlighted the pivotal role played by the head of the local administration (Interviews 1, 2, 3, 4, 5, 7, 8, 11, 13, 14, and 18). Indeed, the willingness and interest exhibited by these key figures emerge as the primary determinants of a municipality's proactive involvement in ICLEI initiatives. Recognizing

the significance of this factor, ICLEI adopts proactive measures to inspire mayors and heads of local governments, urging them to broaden their perspectives and recognize the global imperative for concerted action at the local level, particularly to address climate change.

To support local climate action, ICLEI employs various strategies that demonstrate to mayors the critical role of local governments in addressing climate change. One approach is facilitating mayoral participation in international events, providing opportunities for local leaders to engage with their counterparts around the world, exchange insights, and learn from a range of experiences. This exposure helps mayors stay informed about emerging trends and gain a broader perspective on the collective effort needed to address complex sustainability challenges.

These engagements aim to foster a sense of ownership and responsibility among mayors, motivating them to promote sustainable initiatives within their own communities. By creating spaces where mayors can present their strategies and draw on the insights of others, ICLEI supports a global network of knowledge exchange and collaboration. This approach empowers local leaders to embrace their potential as drivers of change, helping to advance impactful action on climate resilience and sustainability at the community level.

To better illustrate ICLEI's added value, member cities can more effectively educate their citizens about climate change through ICLEI's support—something that would be significantly more challenging, if not impossible, without its involvement. For example, in Yeoncheon-gun, elderly residents initially had little awareness of the climate

crisis or the importance of local environmental actions. However, after the city hosted international forums and invited global speakers through ICLEI, residents became more conscious of climate change (Interview 18). This shift was evident as residents began using climate-related terminology following the collaboration between ICLEI and Yeoncheon-gun.

Beyond its educational role, ICLEI also provides practical assistance to member cities. The Wetland Ecology Team in Goyang-si, for instance, faced challenges in their work but found support through ICLEI. They noted that directly approaching the Ministry of Environment or coordinating meetings with busy officials was difficult. However, ICLEI recognized their issue and arranged a meeting with a Ministry official—something they had been unsuccessfully trying to coordinate for a year. This facilitation demonstrates ICLEI's crucial role in bridging gaps between local governments and higher-level authorities, helping cities overcome bureaucratic barriers to advance their environmental initiatives.

5.4.1 Sustaining Practices Through Mayoral Transitions

Recognition at home and on the international stage

While the willingness and interest of the heads of local governments undeniably form the cornerstone of active participation in ICLEI activities, intriguingly, there are instances where such engagement perseveres robustly despite changes in leadership. Even when incoming mayors exhibit less enthusiasm or interest than their predecessors,

certain customs and practices established within local governments may persist, ensuring continued involvement in ICLEI initiatives.

This sustained engagement typically manifests as continued participation in network activities, such as attending conferences and workshops. In some cases, it may extend further to active collaboration with ICLEI in organizing campaigns or implementing specific initiatives, demonstrating that established institutional practices can help maintain a city's involvement regardless of shifts in political leadership.

One key factor contributing to the perpetuation of active participation in ETMNs despite mayoral transitions is the recognition and validation bestowed upon the local government by external entities, both on the international and domestic fronts. In other words, city branding is an effective motivator of continued commitment to an ETMN, just as it was for joining an ETMN. When a local government is celebrated as an exemplary case study of sustainable development, whether in its home country or on the global stage, it tends to uphold its commitment to active engagement with organizations like ICLEI. This recognition not only reinforces the municipality's sense of pride and responsibility but also serves as a powerful motivator to maintain high levels of participation, even under new leadership.

Moreover, the designation of a local government as an outstanding case study often reflects the institutionalization of sustainable practices within its administrative framework. These established practices, developed and refined over time, become embedded in the organization's culture and ethos, transcending changes in leadership. As

a result, even as mayors turn over, the legacy of these practices can sustain and encourage continued active participation in ICLEI activities.

In essence, while the willingness and interest of local government heads undoubtedly play a pivotal role in driving a city's active participation in ICLEI activities, the persistence of such engagement through mayoral transitions highlights the interconnectedness of institutional recognition, ingrained practices, and tangible outcomes in sustaining momentum toward achieving shared sustainability goals.

The Case of Suwon

The partnership between Suwon and ICLEI serves as an example of a city's sustained commitment to eco-mobility and sustainable urban development. Over the span of approximately a decade, Suwon has been at the forefront of environmentally conscious transportation practices, organizing eco-mobility festivals in collaboration with ICLEI.

A pivotal moment in Suwon's journey occurred in 2013 when UN Habitat and ICLEI introduced the concept of eco-mobility to then-Mayor Yeom Tae-young (Interview 1). Mayor Yeom embraced the initiative, signaling the city's readiness to embark on a transformative path towards eco-friendly mobility solutions. However, the successful realization of this vision owed much to the dedicated efforts of the Director of the ICLEI Korea Office, Park Yeon-hee, who played a pivotal role as a bridge between ICLEI and Suwon City.

Director Park, the head of the ICLEI Korea Office, demonstrated exceptional leadership and strategic vision, which were pivotal in advancing the eco-mobility project.

Recognizing the need to effectively communicate the urgency of addressing climate change and building sustainable cities to the citizens of Suwon, Director Park conceptualized and spearheaded an ambitious ecological transportation pilot project that was implemented in September 2013. This initiative aimed not only to raise awareness but also to tangibly demonstrate the transformative potential of minimizing reliance on automobiles in daily life by providing environmentally sustainable alternatives to automobile transit.

The meticulously planned and executed eco-mobility project unfolded in Haenggung-dong, offering a tangible glimpse into the future of sustainable urban living. By showcasing how the cityscape evolves when everyday activities are conducted with minimal dependence on cars, the project provided a compelling illustration of the benefits of eco-mobility. Moreover, it gave residents the opportunity to try alternative modes of transportation, directly experiencing life without automobiles. Lasting for a transformative month, the campaign reshaped citizens' perceptions and attitudes toward transportation.

Figure 5.1: Eco-mobility project in Suwon, South Korea (Lee 2023)

Figure 5.2: Advertisement for the eco-mobility project in Suwon, South Korea (Choi 2023)[2]

Throughout the month, Suwon residents were introduced to cutting-edge mobility technologies and practices from around the world, each designed to minimize environmental impact and enhance quality of life. From electric bicycles to shared mobility services and pedestrian-friendly infrastructure, the project showcased sustainable transportation options that may serve as viable alternatives to a traditional car-centric lifestyle. Moreover, citizens were afforded the opportunity to test-drive and experience these eco-friendly modes of transportation directly, enabling them to gain

[2] Here is the translation of the words on the image: Walking, Riding, Enjoying: Ecological Transportation Suwon New Festa. Ceremony: Ecological Transportation Parade and Celebration Performance. Side Events: Drone Experience, Unique Bicycles, Smart Farm Experience, Upcycling Class, Busking Performances, etc. Alleyway Programs: Workshop Street Experience, Flea Market, Street Playground, Exhibition, "Anabada" (a local exchange event), Flash Mob, etc.

valuable insights into their practicality, convenience, and overall impact on daily life. By providing firsthand experiences and interactive opportunities, the campaign challenged entrenched notions and behaviors related to automobile dependency, prompting individuals to reconsider the environmental and societal implications of their transportation choices.

Beyond mere exposure to new technologies, the campaign also served as a platform to foster dialogue and knowledge exchange among citizens, policymakers, and industry stakeholders. Through workshops, seminars, and community events, participants were encouraged to share their experiences, insights, and aspirations for the future of mobility in Suwon. This collaborative exchange of ideas not only enriched public discourse surrounding transportation but also allowed citizens to play an active role in shaping the city's sustainable development agenda.

Through experimentation, innovation, and citizen engagement, the temporary eco-mobility project in Suwon left a legacy of greater awareness of sustainable transportation options. As citizens reflected on their experiences and embraced eco-friendly mobility, the project catalyzed a broader shift toward more sustainable transportation practices, ultimately contributing to Suwon's reputation as a model city for sustainable urban living.

Suwon City's implementation of the eco-mobility pilot serves as an example of a successful sustainable transportation initiative. It has garnered international recognition for its innovative approach and tangible results, serving as a benchmark project for local governments seeking to drive transportation innovation in response to the pressing climate crisis (ICLEI East Asia 2023). For example, the event’s 10-year anniversary, the

"2023 Eco-Mobility Suwon New Festa," was incorporated as a side event of the "8th Asia-Pacific Urban Forum" organized by the United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP; ICLEI East Asia 2023; Kim 2023).

Over the past decade, the eco-mobility festival has continued to serve as a showcase for innovative transportation technologies, promoting public awareness and fostering community engagement around eco-friendly mobility solutions. This progress in advancing ecological transportation practices in the region has proceeded despite changes in mayoral leadership, presenting an example of the potential resilience and enduring impact of collaborative sustainability initiatives. The continuity from one administration to another highlights the institutionalization of the festival within Suwon City's governance framework. It has transcended individual leadership changes to become ingrained as a core component of the city's identity and its commitment to sustainability.

The festival's continued success owes much to its recognition and acclaim on both the international and domestic stages. When projects associated with the festival receive awards or accolades in prestigious forums, whether on the global or national stage, the festival and Suwon itself garner heightened attention and visibility in the media. This increased exposure not only celebrates the achievements of the project but also generates broader public interest in and support for it.

As media coverage shines a spotlight on award-winning projects, more people become aware of the approaches being implemented in their community. This heightened awareness often translates into increased public support and advocacy for the

continuation of such initiatives, irrespective of changes in leadership. With a growing chorus of supporters rallying behind these projects, they gain momentum and resilience, making it easier for successive administrations to prioritize and sustain them over the long term.

Moreover, the recognition garnered from international and domestic awards serves to validate the effectiveness and importance of the ecological transportation festival in the eyes of policymakers, stakeholders, and the general public. This validation not only bolsters confidence in the festival's objectives and outcomes but also lends credibility to its proponents, making it more likely that successive administrations will champion and invest in its continued success.

Importance of the proactive leadership of a dedicated public servant

I argue that the most significant factor contributing to sustained participation in ICLEI is the proactive leadership of a dedicated public servant. Understanding this dynamic necessitates delving into the unique institutional characteristics of South Korea's public sector, where officials typically serve in the same position for relatively short tenures, often spanning just one to two years.

This rapid turnover of the personnel in key administrative roles poses distinct challenges to the continuity and expertise required to effectively implement and sustain long-term projects, particularly those with complex objectives such as sustainability initiatives (Interviews 1, 2, and 13). In essence, South Korea's institutional landscape

presents a stark contrast to the stability and continuity typically associated with bureaucratic systems in other countries.

The transient nature of public officials' tenures, which has been likened to the life cycle of grasshoppers, is characterized by a rapid ascent followed by a sudden drop in influence and continuity (Interview 13). The analogy underscores the inherent difficulty of achieving meaningful progress on complex projects within the confines of these short administrative tenures (Interviews 5 and 13). Despite their best intentions and efforts, public officials may find themselves grappling with the challenge of navigating intricate projects within a constrained timeframe, often unable to fully comprehend or address the nuances and complexities involved (Interviews 2, 4, 5, and 13).

The transient nature of public officials' tenures poses challenges not only to project continuity but also to the cultivation of expertise and institutional memory. With each new rotation of personnel, there is a loss of accumulated knowledge and experience, further complicating efforts to build sustainable solutions over time.

The challenges posed by the rapid turnover of public officials within South Korea's administrative landscape are not lost on ICLEI officers, who are keenly aware of the implications for sustained engagement with local governments. Indeed, the transient nature of public officials' tenures necessitates a continuous cycle of education and outreach efforts by ICLEI to familiarize incoming officials with the organization's mission, objectives, and the potential benefits of active participation (Interview 4). According to one ICLEI staffer,

> ICLEI occupies a somewhat ambiguous position. While it is a local government network, each local government has a designated focal point. However, these

> focal points often lack knowledge about ICLEI's projects and act merely as contact persons. This means ICLEI frequently needs to reintroduce itself from the beginning, explaining its purpose and activities (Interview 4).

This ongoing process of explanation and orientation is essential to ensure that each new cohort of public officials understands how to leverage ICLEI's resources, networks, and expertise to advance sustainability goals within their respective jurisdictions. One respondent highlighted the extensive efforts required to onboard new officials and cultivate a sense of ownership and commitment to ICLEI's mission (Interview 4). The need for regular outreach and education underscores the challenges inherent in building long-term relationships and fostering institutional memory within local governments. In essence, the transient nature of public officials' tenures presents a significant barrier to sustained engagement with ETMNs like ICLEI, necessitating proactive strategies to overcome the challenges posed by frequent turnover.

To give you a sense of how public officials are hired, in South Korea, public servants, particularly those in central government ministries, are subject to periodic rotation, typically every two to three years. This system is designed to prevent corruption, promote fairness, and ensure a broad skillset among officials by exposing them to various roles within the government. The exact rotation period varies depending on the ministry, job level, and nature of the position. High-ranking officials and general administrative officers experience more frequent rotations, while those in specialized or technical roles may remain in their positions for extended periods. Local government employees also tend to have longer tenures in specific roles compared to their counterparts in the central

government. While rotation helps prevent bureaucratic stagnation, it can sometimes lead to inefficiencies, particularly in policy continuity and institutional memory.

South Korea's civil service system operates on a dual-track structure: the competitive examination track and the special appointment track. The competitive examination track is the primary entry route, requiring candidates to pass highly rigorous exams for different grades—senior-level, mid-level, and entry-level positions. These exams test general administrative knowledge and are the traditional pathway for career bureaucrats who rotate through various government positions. By contrast, the special appointment track allows the government to recruit professionals with specialized expertise in fields such as law, economics, engineering, and diplomacy. These individuals often hold professional certifications or advanced degrees, and they are typically placed in roles requiring deep subject matter knowledge rather than broad administrative functions. While the competitive examination track ensures a meritocratic selection of career civil servants, the special appointment track helps the government adapt to evolving policy needs by integrating external expertise.

In addition to the challenges posed by the rapid turnover of public servants within South Korea's administrative framework, another significant barrier to active participation in global cooperation on climate change is the deeply ingrained administrative characteristic known as “kanmagi” (compartmentalization; Interviews 2, 4, 5, 13, and 18). It manifests as a tendency for public officials in South Korea’s bureaucratic culture to operate within silos, with limited collaboration and communication across different sectors or departments within an administration.

The kanmagi administrative trait is characterized by the presence of tangible and intangible barriers that hinder the free flow of information, resources, and expertise between different parts of an administration. Public officials often find themselves confined to their respective domains, focusing solely on the tasks and responsibilities assigned to them, without venturing beyond the boundaries prescribed by their organizational hierarchy.

This compartmentalized approach to governance not only stifles creativity and innovation but also impedes the ability of public officials to address complex and interconnected challenges such as climate change (Interview 5). Rather than working collaboratively across sectors to develop holistic solutions (Interview 5), public servants may find themselves constrained by rigid bureaucratic structures and hierarchical protocols, limiting their ability to adapt and respond to evolving environmental threats.

The prevalence of kanmagi contributes to a culture of passivity and deference within the public sector, where civil servants are more inclined to follow orders from superiors rather than taking proactive initiative or exercising independent judgment. This phenomenon further exacerbates the challenges associated with administrative turnover, as incoming officials may inherit a culture that prioritizes obedience over innovation and collaboration.

While kanmagi may pose significant challenges to effective governance and collaboration in South Korea's public sector, it is important to recognize that there are exceptions to this norm, particularly when it comes to public servants with specialized expertise in sectors such as the environment or climate change. Individuals with

particular expertise may find themselves in the same position for extended periods, sometimes spanning over a decade, due to the value of their knowledge and experience at addressing complex environmental issues.

This phenomenon of extended tenure for public servants with specialized expertise represents a departure from the typical grasshopper trajectory, where turnover is rapid and institutional memory is constantly reset. Instead, these individuals are able to accumulate a wealth of knowledge, experience, and coping skills specific to their area of expertise, enabling them to make significant contributions to address climate change and environmental challenges over the long term.

The retention of such individuals in key positions allows for continuity and stability in the formulation and implementation of policies and initiatives related to climate change mitigation and adaptation. Rather than starting from scratch with each new administration, these experienced public servants can build upon past successes, learn from past failures, and develop context-specific strategies to address climate change that reflect the evolving needs and priorities of society.

Furthermore, the prolonged tenure of public servants with specialized expertise fosters a culture of continuity and commitment within their respective sectors. By remaining in their positions for extended periods, these individuals are able to establish long-term relationships and partnerships with stakeholders, both within and outside the government, facilitating greater collaboration and coordination to address complex environmental challenges.

While not all civil servants exhibit proactive tendencies, there is a notable presence of affirmative and forward-thinking individuals within South Korea's public service sector, as echoed by numerous respondents (Interview 9). Among these, standout examples have been observed in municipalities such as Jeonju, Goyang, and Dobonggu, where civil servants have been designated as special rapporteurs of climate change and demonstrate a sincere commitment to environmental stewardship (Interview 9).

In these municipalities, civil servants selected as special rapporteurs of climate change exemplify a dedicated and earnest approach to addressing environmental challenges. Firsthand interviews and participant observation reveal that these individuals possess a genuine passion for environmental sustainability and are deeply invested in leveraging platforms such as GCoM and ICLEI to advance local climate action agendas (Interviews 13, 15, and 18).

In my interactions with these civil servants, I found them to be genuinely engaged with the functions and offerings of ICLEI, recognizing the organization's potential to support and enhance local governments' efforts to tackle climate change. Their proactive approach extends beyond mere acknowledgment of ICLEI's resources; they actively seek out opportunities for collaboration and support, reaching out to ICLEI officers for guidance, assistance, and expertise on a range of work tasks, official conferences, lectures by international figures, and discussions.

ICLEI officers corroborate these observations, noting the generally proactive engagement of public servants and their positive reception of the suggestions and

initiatives proposed by ICLEI. Such civil servants seek guidance and support to enhance their capacity and effectiveness at addressing climate change at the local level.

This collaborative dynamic between ICLEI and proactive civil servants underscores the importance of fostering a culture of partnership and mutual support within South Korea's public service sector. By leveraging the expertise and resources of organizations like ICLEI and empowering civil servants to take proactive initiative to address environmental challenges, municipalities can drive meaningful progress toward building more sustainable and resilient communities for future generations.

Some tasks associated with ICLEI's recommendations are time-consuming and require attention to detail (Interview 9), but are nonetheless essential for ensuring compliance and progress towards sustainability goals. In such cases, having a passionate and dedicated public servant who is genuinely interested in environmental issues can make all the difference.

The insights garnered from conversations with longer-serving civil servants involved in reporting to platforms such as the CDP (Carbon Disclosure Project)-ICLEI Track show how curious and earnest they are in their efforts to understand the global benchmarks for climate action.[3] When questioned about their motivations for diligently reporting their municipalities' progress to these platforms, their responses underscore a

[3] CDP-ICLEI Track is the world's leading climate reporting platform and progress accountability mechanism for local governments and their cities, intended to help them understand their impact and take action. In 2023, over 1,100 cities reported over 8,000 urban sustainability actions such as increasing energy efficiency and green spaces. Also, cities can measure their progress on UN-backed climate campaigns and report to key climate initiatives through CDP-ICLEI Track. (Source: https://www.cdp.net/en/cities Access Date: 11/9/2024)

genuine desire to measure their efforts against global standards and assess their performance in reducing greenhouse gas emissions (Interviews 13, 14, and 18).

For these civil servants, the GCoM serves not only as a set of guidelines but also as a valuable tool for gauging the effectiveness of their municipalities' climate mitigation efforts relative to those of other regions around the world (Interview 15). By participating in the reporting process, they gain valuable insights into the progress made both locally and globally in reducing greenhouse gas emissions, allowing them to benchmark their achievements and identify areas for improvement (Interviews 13 and 15).

According to one interviewee,

> One of the most challenging tasks after joining has been registering with CDP-ICLEI Track. Unlike larger cities like Suwon or Goyang, which have city research institutes that facilitate the process, we lacked such support until late last year when a city research institute was established. Without such assistance, much of the work fell on individual practitioners, requiring them to research and manually input data, which was not easy. Despite the difficulties, this process provided insights into the city's current status, what needs to be done, and the direction we should pursue. This clarity on goals was one of the most significant achievements.

This curiosity and eagerness to align with global standards reflects a broader commitment to accountability and transparency in climate action. By voluntarily participating in reporting to platforms like the CDP-ICLEI track, civil servants demonstrate a willingness to hold themselves accountable to both their constituents and the international community, ensuring that their municipalities' efforts are in line with best practices and global expectations.

Moreover, the dedication exhibited by civil servants in completing the reporting process, which often requires considerable time and effort, underscores the seriousness with which they approach their responsibilities in addressing climate change (Interview 9). Despite the voluntary nature of the reporting platform, civil servants devote approximately two weeks to completing the process, highlighting their commitment to transparency and data-driven decision-making in climate action.

The exemplary performance of municipalities like Dobonggu, which earned an A-list badge[4] for its outstanding efforts, serves as a testament to the impact of proactive engagement and rigorous reporting practices. By consistently striving to meet and exceed global standards for climate action, these municipalities not only enhance their own resilience and sustainability but also serve as role models for others.

Through their participation in ICLEI and other transnational municipal networks, municipalities like Dobonggu establish informal channels of communication and cooperation with their counterparts in other parts of the world. While they may not physically meet in the same way that national diplomats do, they nonetheless develop a deep understanding of each other's priorities, challenges, and achievements in addressing common issues such as climate change.

Central to this form of paradiplomacy is the mutual exchange of knowledge, best practices, and lessons learned between local governments. By sharing experiences and

[4] CDP's A List recognizes cities that have the highest scores on climate action and transparency. To be on the list, a city must: publish a climate action plan, have a city-wide emissions inventory, disclose progress publicly through CDP-ICLEI Track, complete a climate risk and vulnerability assessment, and have a climate adaptation goal. (Source: https://www.cdp.net/en/cities/cities-scores Access Date: 11/9/2024)

insights, municipalities can learn from each other's successes and failures, identify innovative solutions, and collaborate on joint initiatives to address shared challenges more effectively.

Moreover, the emphasis on performance measurement and reporting within transnational platforms fosters a culture of accountability and transparency among participating municipalities. By regularly assessing and benchmarking their progress against global standards, municipalities not only demonstrate their commitment to addressing climate change but also contribute to a broader culture of collective action and shared responsibility among local governments worldwide.

In this way, paradiplomacy between smaller administrative units and global cities through platforms like ICLEI serves as a catalyst for meaningful international cooperation and collaboration on pressing global issues. While the dynamics may differ from traditional diplomacy, the outcomes—enhanced resilience, sustainability, and collective action—are no less significant.

All in all, I contend that proactive leadership plays a pivotal role in overcoming systemic barriers and driving progress in climate governance. The transient nature of public officials' tenures and the compartmentalized structure of South Korea's public administration pose significant challenges to sustained participation and meaningful engagement in ETMNs like ICLEI. These systemic issues disrupt the continuity and expertise required for long-term climate initiatives. However, proactive and specialized civil servants have the potential to overcome these barriers by fostering continuity,

building institutional memory, and advancing sustainability goals, driving progress on climate change despite the inherent difficulties.

Positive examples of municipalities such as Dobonggu showcase how proactive engagement and rigorous participation in reporting processes like those offered by ICLEI and GCoM can yield tangible results. According to ICLEI officers, the presence of at least one passionate and dedicated public servant within a local government is crucial to effectively implementing the organization's recommendations and initiatives. This environmental entrepreneur serves as a driving force behind the municipality's efforts to address environmental challenges and actively engage with ICLEI's programs and initiatives.

Despite the presence of exemplary cases in South Korea's public service sector, it's important to acknowledge that the country's highly centralized governance structure poses challenges. This centralization often makes it difficult for local governments to address the unique needs and conditions of their communities. Instead, public servants may find themselves bound by rigid bureaucratic protocols and top-down directives that limit their ability to innovate and adapt to local circumstances.

In many cases, public servants may feel compelled to simply carry out orders rather than taking initiative or working proactively. This culture of obedience and adherence to hierarchy can stifle creativity and discourage independent thinking, resulting in a workforce that may be less inclined to voluntarily engage in tasks beyond their assigned responsibilities (Interview 2). As one respondent aptly noted, synthesizing the various elements of public administration within this framework can be a daunting

challenge, further complicating efforts to foster a more dynamic and responsive public service sector.

Furthermore, the centralized nature of governance in South Korea can exacerbate disparities between urban and rural areas, as policies and initiatives may be formulated with a predominantly urban perspective, overlooking the unique needs and challenges faced by rural communities. The lack of localized decision-making authority can hinder efforts to address issues such as regional development, infrastructure, and social welfare in a holistic and inclusive manner.

There is growing recognition of the need to decentralize governance structures and empower local governments with greater autonomy and decision-making authority (Interviews 1 and 5). By devolving power to the local level, South Korea can create space for innovative solutions tailored to the specific needs and circumstances of individual communities, while also fostering a more dynamic and responsive public service sector.

Efforts to promote a culture of voluntary engagement and initiative-taking among public servants are needed to unlock the full potential of South Korea's public service sector. This may involve incentivizing innovation, providing opportunities for professional development and skill-building, and fostering a more collaborative and inclusive work environment that values input from all levels of the bureaucracy.

The Case of Jeonju

One public official in Jeonju has served as a civil servant in the environmental field for at least 16 years. His responsibilities encompass various climate change–related

policies, the greenhouse gas emission trading system in the waste sector, water pollution monitoring, and oversight of the construction of the ecological experience center.

At the GCoM Korea Capacity Building Workshop in October 2022, the comprehensive climate change plan implemented in Jeonju was presented in response to a request from the Korean office. In this workshop, notable examples from Vienna, Austria, and Umea, Sweden, demonstrated effective strategies, particularly to address urban challenges, while Gwangju Metropolitan City in Korea showcased its policies for monitoring and reducing greenhouse gas emissions in the building sector.

In Korea, the ICLEI Korea Office is responsible for managing all GCoM-related tasks, serving as the central institution driving these initiatives. The collaboration between GCoM and ICLEI provides invaluable opportunities for networking and information sharing among diverse stakeholders. Participation in ICLEI events, especially those involving international cities, not only facilitates the exchange of policy experiences but also fosters cultural understanding and mutual learning. In this capacity, the ICLEI Korea Office functions as a bridge, connecting domestic and international cities, and leading collaborative efforts to address the global climate crisis while advancing GCoM objectives.

The degree of cities' cooperation with ICLEI varies depending on the leadership of the local government. While some leaders prioritize active engagement based on past experiences, others may focus solely on political appearances. Despite limited city-to-city exchanges with foreign counterparts in the climate change sector, advanced overseas cases from countries such as Japan, the United States, Singapore, Germany, the

Netherlands, and Belgium have been used as valuable benchmarks for South Korean cities.

The case of the long-serving public servant in Jeonju highlights how the proactive leadership of a dedicated public servant can serve as a catalyst for meaningful progress in climate governance. Over 16 years of consistent service, this official has not only managed a diverse range of environmental policies but has also fostered civic engagement and participatory governance. By maintaining long-term involvement and building extensive networks with local and international stakeholders, this individual has ensured policy continuity and facilitated knowledge exchange with other municipalities. Jeonju's efforts, particularly its active participation in ICLEI and GCoM workshops, underscore the importance of consistent leadership that can apply global insights to the local context and in turn inspire other municipalities. This example demonstrates that proactive and sustained leadership is pivotal in bridging systemic gaps, advancing innovative climate solutions, and fostering collaborative partnerships to address the climate crisis.

Bureaucratic responsibilities and global cooperation initiatives

Civil servants are more likely to utilize ICLEI resources when their current responsibilities are closely intertwined with global cooperation initiatives (Interview 3). In such instances, civil servants are more likely to actively seek out opportunities for collaboration and engagement with ICLEI, leveraging the organization's expertise, networks, and resources to enhance the effectiveness and impact of their local initiatives.

Whether it involves developing sustainable urban development strategies, implementing climate action plans, or participating in transnational municipal networks, civil servants understand that ICLEI can provide valuable guidance, tools, and best practices to support their efforts.

Furthermore, civil servants whose work is closely aligned with global cooperation initiatives often possess a heightened awareness of the interconnected nature of contemporary challenges, recognizing that solutions to local problems often require collaboration and coordination at the global level (Interview 3). Thus, they are more receptive to the idea of engaging with organizations like ICLEI, which serve as platforms for knowledge exchange, capacity building, and collective action on a global scale.

Moreover, civil servants involved in global cooperation initiatives are more likely to view ICLEI as a strategic partner that can advance their municipality's sustainability agenda on the international stage. By actively participating in ICLEI-led initiatives, attending conferences, and collaborating with their counterparts in other regions, they can showcase their municipality's achievements, share lessons learned, and contribute to global efforts to address pressing environmental challenges.

In this way, the alignment of civil servants' responsibilities with global cooperation initiatives can catalyze a municipality’s engagement with ICLEI and other similar organizations. By recognizing the intrinsic connection between local actions and global impacts, civil servants are motivated to leverage the resources and expertise of organizations like ICLEI to drive positive change and contribute to the collective effort to create a more sustainable and resilient future for all.

On the whole, the examples and analysis presented throughout this chapter illustrate that the proactive leadership of dedicated public servants is a critical driver of sustained engagement in ICLEI. While international recognition and branding are undoubtedly important motivators of municipalities' decisions to join such networks, as highlighted in the previous chapter, this chapter contends that the consistent and proactive efforts of civil servants often play a more transformative and enduring role. For instance, the case of Jeonju demonstrates how one civil servant's long-term commitment to environmental policies and global collaboration significantly enhanced the municipality's ability to navigate complex challenges. By fostering participatory governance, implementing robust climate policies, and building strong networks, this individual ensured sustained engagement that extends beyond initial recognition or accolades.

If proactive public servants can overcome systemic barriers such as short tenures and compartmentalization, they can increase the likelihood that international recognition translates into meaningful and sustained action. While branding and external validation may prompt municipalities to engage with organizations like ICLEI, it is the ongoing dedication of civil servants that ensures the longevity of these efforts. These individuals not only drive their municipalities' environmental goals but also uphold the continuity of climate action, forming the backbone of resilient engagement in ETMNs like ICLEI. Even as international recognition boosts a municipality's profile, it is the proactive leadership of public servants that embeds sustainable practices into local governance,

ensuring that these efforts persist regardless of shifts in political priorities or administrative leadership, as seen in cities like Suwon and Jeonju.

5.4.2 Inactive Municipalities

Not all cities engage at the level of Shinan-gun, Suwon, Seodaemun District, and Dangjin. A significant challenge faced by civil servants engaging with organizations like ICLEI is their limited knowledge of the ETMN's full range of services and functions, with some perceiving it merely as an entity to which local governments are obligated to contribute financially. This limited awareness often results from the short tenure of civil service positions. Just as these officials begin to grasp the responsibilities of their positions and develop familiarity with external partnerships, they are often replaced, perpetuating a cycle of limited institutional knowledge and impeding sustainable, long-term engagement.

Cities like Daegu underscore the common disconnect many local governments experience when they contribute financially to ICLEI but do not fully engage with the benefits or understand the scope of its activities (Interviews 7 and 8). According to one official from Daegu: "Although Daegu has been an ICLEI member and pays annual membership fees, there was a lack of understanding among the responsible staff about what ICLEI does and how it can be effectively utilized" [5]. This disconnect can create a

[5] Since the introduction of direct mayoral elections in South Korea, Daegu has never elected a mayor from the Democratic Party or its predecessor parties. Daegu is known as one of the most conservative regions in South Korea, consistently supporting right-leaning parties such as the Liberty Korea Party (formerly the Saenuri Party, Hannara Party, and New Korea Party) and the current People Power Party. Despite Democratic Party candidates running in mayoral elections, they have never secured enough votes to win.

sense of disengagement, where officials feel that their membership dues are not yielding tangible returns, leading some municipalities to reconsider their relationship with ICLEI altogether.

To address this, ICLEI has adopted strategies to maintain member engagement, even with municipalities that display minimal or irregular involvement. Recognizing that changes in leadership can bring shifts in priorities and openness to international collaboration, ICLEI often waits for administrative transitions, such as a new mayor's election or the new appointment of public officials, before re-engaging with reluctant municipalities. ICLEI aims to use these changes as opportunities to renew interest and encourage renewed participation in transnational environmental initiatives.

One notable example of an inactive ICLEI member is Gwangju. During my interviews with environmental activists in the city, none of them could recall any recent events or forums organized by ICLEI in Gwangju (Interview 6). This observation suggests a lack of visible engagement between the city and ICLEI in recent years. Despite Gwangju's past affiliation with ICLEI, collaboration between the two entities appears to have ceased in 2013. This prolonged period of inactivity raises questions about the sustainability of partnerships and the mechanisms necessary to maintain long-term cooperation. It also highlights the potential challenges of fostering consistent engagement between local governments and international organizations, especially when such collaborations rely heavily on periodic initiatives rather than ongoing, integrated efforts.

In terms of mayoral turnover, Gwangju has never elected a mayor from a conservative party such as the People Power Party (formerly the Liberty Korea Party,

Saenuri Party, and Hannara Party). As one of the most progressive cities in South Korea, Gwangju has been a stronghold of liberal and Democratic Party-affiliated candidates, particularly since the May 18 Democratic Uprising (Gwangju Uprising) in 1980. Since the introduction of local elections in 1995, every elected mayor of Gwangju has come from the Democratic Party or its predecessor parties. The mayor's political affiliation provides more insight into why Gwangju joined ETMNs than the specific nature of its participation.

It remains unclear whether Gwangju had a long-term climate bureaucrat. However, I have heard that Gwangju attempted to host the ICLEI Korea Office in the 2010s but was unsuccessful. This failure reportedly strained the relationship between Gwangju and ICLEI.

5.4.3 Limitations of ICLEI's Impact

The effectiveness of ICLEI's outreach and communication strategies leaves room for improvement. While ICLEI makes considerable effort to share best practices and success stories through various platforms, these messages may not always resonate with or reach the intended audience. The diversity of local contexts means that a one-size-fits-all communication approach may not be sufficient. Municipalities vary widely in their capacities, priorities, and political environments, and ICLEI's messaging may need to be more tailored to address these differences effectively. Without an approach that considers the specific needs and challenges of different municipalities, ICLEI may remain most influential among a subset of already-engaged and environmentally motivated cities,

leaving a significant portion of potential members unengaged or unaware of the benefits of joining the network.

Additionally, ICLEI faces the challenge of competing priorities within local governments. Public officials are often tasked with balancing a multitude of pressing issues, ranging from economic development and public health to infrastructure maintenance and social services. In this crowded field, the sustainability initiatives promoted by ICLEI might not always take precedence, especially if they are perceived as secondary to more immediate and visible concerns. For example, in cities facing economic downturns or crises, the urgency of addressing unemployment, housing shortages, or public safety may overshadow long-term sustainability goals. This competition for attention and resources can dilute ICLEI's influence and hinder its ability to drive widespread change, particularly in municipalities where sustainability is not seen as a top priority.

ICLEI's operational model, which heavily relies on voluntary participation and self-reporting by its member cities, introduces another layer of complexity. While voluntary participation ensures that cities that join ICLEI are genuinely committed to sustainability, it also means that the level of commitment and the quality of implementation can vary significantly from one city to another. Some municipalities may join ICLEI to gain international recognition or to align themselves with global environmental trends without fully committing to the rigorous implementation of sustainability practices. This variability can lead to inconsistencies in the progress and

outcomes achieved by member cities, making it challenging for ICLEI to ensure that all members are making substantial progress toward the network's sustainability goals.

5.5 Conclusion: Rethinking the Dynamics of ICLEI Engagement

This chapter offers an analysis of the factors influencing municipal engagement with ICLEI, moving beyond the surface-level determinants such as mayoral interest and international recognition that dominate the existing literature. While these elements are undoubtedly important in encouraging cities to initiate participation, the analysis demonstrates that they are insufficient to sustain long-term, meaningful engagement. Factors like short-term mayoral enthusiasm or the prestige associated with international branding may create a façade of engagement without embedding the structural or institutional changes necessary for ongoing collaboration.

What the analysis reveals is the pivotal role of proactive civil servants in overcoming systemic barriers and maintaining institutional memory. The study highlights how the transient nature of public officials' tenures in South Korea, combined with the rigid and compartmentalized administrative structure, undermines the continuity required for long-term engagement in ETMNs. Despite these systemic challenges, individuals such as the dedicated civil servant in Jeonju demonstrate how sustained leadership and expertise can overcome these constraints, ensuring that ICLEI membership translates into actionable progress on sustainability goals. This insight shifts the focus from the external

motivators often emphasized by previous studies to the internal dynamics that are critical for the longevity and effectiveness of municipal partnerships with ICLEI.

Furthermore, cases like Gwangju illustrate that without institutional structures to leverage ICLEI resources effectively, such partnerships risk becoming superficial. This underscores the importance of capacity building and institutionalization, rather than relying on transient political will or external recognition, to achieve substantive outcomes. By identifying what matters—and what does not—for sustained participation, this chapter advances the literature by emphasizing the necessity of embedding long-term strategies and proactive leadership within local governance frameworks to ensure meaningful engagement with ETMNs.

Chapter 6 Central Governments' Responses to Paradiplomacy

6.1 Introduction

How do states respond to paradiplomacy by subnational actors within their countries? This chapter classifies the responses of nation-states into three broad categories: supportive, indifferent, and oppositional. Supportive states actively encourage and facilitate their cities' participation in ETMNs. Indifferent states, neither support nor hinder city initiatives, allowing cities to operate autonomously in the international arena. Oppositional states, however, actively resist or undermine city-led initiatives, viewing such actions as a challenge to national sovereignty or as conflicting with national interests.

Exploring the relationship between cities and states within the context of ETMNs highlights the bidirectional influences between these two levels of governance. On the one hand, cities can influence state policies by demonstrating successful local climate initiatives and advocating for broader adoption of such policies at the state level. On the other hand, state policies can either empower or constrain city participation in ETMNs, depending on the level of support or resistance the national government provides. This interdependence underscores the importance of fostering an integrated and collaborative approach to global environmental solutions, where cities and states play complementary roles advancing sustainability agendas.

In jurisdictions where power is heavily centralized, local governments frequently find their autonomy and capacity to enact substantial change constrained by the overarching authority of the central government (Goldsmith 2002). The hierarchical

nature of such governance systems can limit the ability of local governments to effectively address pressing issues like climate change. In contrast, federal systems distribute power more evenly between national and subnational entities, allowing for greater local autonomy and flexibility. Similarly, European Union countries benefit from legal frameworks, such as the Madrid Convention and the European Charter of Local Self-Government, which support regional and local governments in cross-border cooperation.

Understanding national governments' perceptions of and responses to local paradiplomatic activities is essential to ensure alignment and coherence in climate policies across different levels of government. With a clearer understanding of the central government's perspective, local leaders can more effectively tailor their strategies to align with national priorities, build stronger coalitions, and leverage available resources to advance their climate goals. By examining the factors that influence central government attitudes toward local climate initiatives, scholars and policymakers can gain valuable insights into how to enhance the effectiveness of multilevel climate governance, ultimately contributing to more coordinated and impactful environmental action on both the national and global scale. This inquiry is not only of academic interest but also of practical importance, as it can inform policy decisions that lead to a more sustainable and resilient future for communities around the world.

I take an inductive approach in this chapter. Specifically, I examine the relationship between the nation-state and cities' paradiplomacy, looking at South Korea, the United States, Belgium, and Spain. The selection of these locations as case studies is

based on their distinct governance structures, varying degrees of decentralization, and unique approaches to international engagement at the municipal level. These cases provide a broad comparative spectrum that allows for a nuanced analysis of how different institutional settings influence city-led diplomacy.

The United States, with its highly decentralized federal system, allows cities significant autonomy to conduct international relations. South Korea, despite its historically centralized governance, has seen cities progressively expand their international roles, particularly in terms of economic cooperation and city branding, despite the constraints imposed by the national government. Belgium, a federal state, features one of the most advanced forms of regional paradiplomacy, with the subnational governments of Flanders and Wallonia enjoying formalt diplomatic powers. Spain is included as a counterexample, with a central government that is resistant to city-led environmental initiatives and oppositional toward subnational engagement in international climate diplomacy. Because of these constraints, Spain's case does not represent paradiplomacy in the strictest sense.

These four countries were selected as illustrative case studies, each chosen to capture a diverse spectrum of national-local dynamics in the realm of international engagement. The selection was intentional, designed to explore how different political systems condition the role of cities in global climate governance. The United States and South Korea serve as the primary cases for this dissertation, exemplifying contexts in which cities are assuming increasingly prominent roles, albeit within distinct institutional frameworks. Belgium, as an outlier, demonstrates the possibilities offered by a highly

decentralized system, where subnational governments such as Flanders and Wallonia possess formal diplomatic powers and considerable autonomy. In contrast, Spain provides a critical counterexample, revealing how central government resistance can limit municipal participation in international climate diplomacy and restrict the scope of local autonomy. Together, these cases construct a comparative framework that sheds light on how varying degrees of decentralization and central government support influence the capacities and constraints of cities as actors in global climate initiatives.

In the discussion section of this chapter, I compare these cases systematically, highlighting similarities and differences to draw broader conclusions and refine the hypotheses generated through this analysis.

6.2 Literature Review - Relationship between city and state

The rise of city diplomacy illustrates both cooperative and contentious interactions between city governments and nation-states (Martinez & Bunnell 2024). The decline of national authority in the late 20th century, combined with cities' increasing demographic and economic significance and the growth of hybrid state and non-state governance structures, has sparked renewed interest in local politics across many nations. This shift has led to demands for decentralization and enhanced recognition of cities in global policy implementation (Martinez & Bunnell 2024).

City governments sustain both formal and informal ties with national governments, enabling them to navigate global complexities (Clark & Moonen 2016). They function both as part of the state apparatus and as local democratic entities, holding

political legitimacy and accessing resources while retaining some autonomy in foreign affairs (Rosenau 1990). Although international law restricts cities from joining intergovernmental organizations or signing binding treaties, they can still impact global governance through transnational advocacy networks and other non-state arrangements (Amiri & Sevin 2020).

The practice of city diplomacy underscores the changing dynamics between cities and states. As both sovereignty-bound and sovereignty-free actors, city governments have various ways of exerting political influence (Martinez & Bunnell 2024). They may support national objectives or independently engage in international activities, showcasing their growing global influence alongside the persistent dominance of nation-states in international relations (Martinez & Bunnell 2024).

6.3 Analysis

6.3.1 South Korea

Historical Context

In South Korea, the national government’s response to cities' paradiplomacy reflects a long history of centralized governance that limited local autonomy and international engagement. Throughout South Korea's period of rapid industrialization in the late 20th century, the central government maintained stringent control over local governments, ensuring that their actions aligned closely with national priorities. This “developmental authoritarianism” was deemed necessary to achieve economic success, but it significantly curtailed local governments' ability to act independently, particularly

in areas such as international cooperation (Bae 2016). This centralization meant that any form of paradiplomacy, or city-led international diplomacy, was largely out of reach for local governments.

Efforts to decentralize began in the 1990s, as political and economic challenges highlighted the limitations of a highly centralized governance system. Various administrations, starting with that of Kim Young-Sam, attempted to reform the relationship between the central and local governments by introducing direct local elections and transferring limited powers to local authorities. However, these reforms focused primarily on political, administrative, and fiscal decentralization within the domestic sphere, with little emphasis on promoting international engagement or paradiplomacy (Bae 2016). As a result, even as local governments gained some autonomy, they remained constrained by the overarching control of the national government, which prioritized domestic governance over international cooperation.

Under Presidents Kim Dae-Jung and Roh Moo-Hyun, the decentralization efforts progressed further, with a focus on transferring authority from the central government to local governments. These efforts laid the groundwork for greater local autonomy, but once again, the primary goal was to improve domestic governance rather than to encourage cities to pursue independent diplomatic initiatives abroad (Bae 2016). The national government’s reforms during this period were aimed at strengthening local governments' ability to manage their own affairs.

Despite the central government's domestic focus, local governments began to explore opportunities for international cooperation. Cities like Suwon and Seoul became

involved in global initiatives such as ICLEI and C40, signaling a shift toward greater international engagement at the local level in the early 2000s[6] (Interview 1). These efforts were largely driven by local leadership, with figures like Suwon's former Mayor Yeom Tae-young and Seoul's former Mayor Park Won Soon pushing for more active participation in global sustainability networks (Interview 1). However, these city-level initiatives did not garner enthusiastic support from the national government, which remained focused on domestic concerns and offered limited backing for such international efforts.

The national government's response to these local paradiplomatic efforts has remained indifferent (Interviews 1, 3, 8, 10, and 11). While local governments and cities have shown increasing interest in participating in global networks and fostering international cooperation, the central government has not actively supported these initiatives (Interviews 1 and 2). The bureaucratic structure of the national government, with its compartmentalized agencies and a strong focus on domestic issues, has made it difficult for local governments to gain broader national support for their paradiplomatic activities. This indifference creates challenges for local governments seeking to coordinate their international efforts with national policies, leaving them to navigate these initiatives largely on their own (Interviews 1 and 5).

Below are direct excerpts from interviewees:

> The central government shows limited interest in local governments. Korea has not yet established a strong foundation for decentralization, and the central

[6] Suwon joined ICLEI in 2005, and Seoul became a member of C40 in 2006.

government does not seem to view local governments as critical partners for collaboration (Interview 3).

The central government does not involve itself when local governments join city networks or form sister-city partnerships unless funding is requested (Interview 11).

The central government has not provided adequate support. While the Ministry of Environment actively participated in events like the national conference in 2001, its interest in sustainable development has waned over time. Today, the ministry shows little concern for sustainability and focuses instead on specialized areas such as water or air. Only individual staff members may learn about ICLEI during their 1–2 year tenure, but the institution as a whole remains unaware (Interview 1).

The Ministry of Environment is generally hands-off, with involvement varying by issue. For example, during the World Water Forum, the Ministry of Land, Infrastructure, and Transport actively participated (Interview 7).

The national government's stance on sustainability has shifted with each administration. Under President Roh Moo-hyun (2004), the Basic Act on Sustainable Development was established, and a Presidential Commission on Sustainable Development was created to oversee it. During the Lee Myung-bak administration, this act was replaced by the Framework Act on Low Carbon Green Growth, transferring responsibility to the Ministry of Environment. Under President Moon Jae-in, the Basic Act on Sustainable Development was reinstated. However, under the Yoon Suk-yeol administration, no clear stance or detailed guidance on sustainability has been provided. While some local governments with proactive mayors continue to push sustainability initiatives, the majority are waiting for direction from the central government, which has remained inactive (Interview 8).

Objectively, the national government has underperformed. It has failed to provide local governments with the necessary conditions to succeed. There is a need to listen to the voices of local governments. Local-level actions alone are insufficient; national-level changes are essential. The Ministry of Environment demonstrates a complete lack of understanding regarding these issues (Interview 10).

Moreover, the fragmentation within government agencies complicates the national response to local paradiplomatic efforts. Specialists within various ministries, particularly those dealing with environmental issues, often work in silos, preventing the kind of interdisciplinary collaboration necessary for effective international engagement (Interviews 1 and 2). The Korea National Park Service, for instance, which is tasked with managing areas of ecological importance, has struggled to handle international environmental diplomacy with limited resources, further illustrating the challenges local governments face in aligning their paradiplomatic efforts with national priorities (Interviews 1 and 2).

In conclusion, the national government's response to cities' paradiplomacy in South Korea has been shaped by a legacy of centralized governance and a focus on domestic concerns. While local governments have increasingly sought to engage in international networks and promote global cooperation, the central government has been slow to support these efforts. Fragmentation within national agencies and a lack of enthusiasm for international collaboration have hindered the development of a cohesive approach to paradiplomacy, leaving cities to pursue these initiatives largely on their own. Despite these challenges, local governments continue to push forward, seeking to enhance their global standing and engage in international cooperation to address shared challenges.

Indifferent Response from the Central Government: Causes and Implications

According to my interviews, the landscape of environmental expertise within government agencies is compartmentalized, with specialists in water and atmospheric sciences operating in silos. This fragmentation has hindered the integration of interdisciplinary perspectives that are essential to comprehensively address complex environmental challenges (Interviews 1 and 2). Moreover, international collaboration in environmental affairs has been relatively uncharted territory, with minimal institutional mechanisms in place to facilitate cross-border cooperation.

In this context, the Korea National Park Service, under the Ministry of Environment, has emerged as a focal point for international engagement. Tasked with managing areas of significant ecological importance, the National Park Service assumed responsibility for liaising on matters pertaining to international agreements. However, the limited human resources allocated to this function pose challenges to the agency's effective navigation of the complexities of international environmental diplomacy.

The chasm between ministries in South Korea looms large. The entrenched atmosphere, characterized by bureaucratic silos and a narrow focus on Korea's immediate challenges, frequently sidelines broader global engagement and efforts at collaboration. In this climate, domestic concerns take precedence over international cooperation.

Such cooperation would not be unprecedented in South Korea. The Sunshine Policy, implemented during the presidency of Kim Dae-jung (1998–2003), emphasized active engagement and cooperation with North Korea. This included providing humanitarian aid, promoting inter-Korean economic initiatives such as the Kaesong

Industrial Complex, and facilitating family reunions. Notably, the policy achieved a historic milestone with the first inter-Korean summit in 2000. Such actions exemplify meaningful cooperation, setting a benchmark for what engagement and collaboration could look like on a broader scale. One might expect a stronger commitment to international collaboration based on the progress made by the Sunshine Policy.

However, nowadays the central government's level of engagement with environmental paradiplomacy indicates a lack of enthusiasm that stands in contrast to the grassroots momentum and dedication exhibited by participants at the local level. While local stakeholders actively participate and strive for excellence in sustainability, the central government's lack of support poses challenges to the coordination of sustainable development initiatives at the national level.

According to my interviews, it is apparent that the reaction of the central government to ICLEI's initiatives is characterized by indifference (Interviews 1, 3, 7, 8, 10, and 11). Although the government generally acknowledges the existence of ICLEI as an organization committed to sustainable development, their level of involvement and active engagement with its activities tends to be limited.

Even within central government departments specifically tasked with environmental issues, such as the Ministry of Environment, there is often minimal engagement with international cooperation efforts or organizations like ICLEI. Only a fraction of the personnel in these departments is typically familiar with such initiatives, indicating a lack of emphasis on collaboration with local entities.

Some interviewees point out that this lack of interest or robust participation stems from the level of centralization in South Korea (Interviews 1, 2, 5, and 8). In South Korea, the central government appoints personnel and allocates budgetary resources, leaving local governments with limited autonomy and authority (Interviews 5 and 8). Cities are almost subordinate to the central government and inherently dependent on it. This shows the predominance of state-based governance according to the Westphalian order. In such a centralized system, the state remains indifferent to cities' activities, priorities, and efforts at paradiplomacy. There is little space for meaningful engagement with initiatives originating from local jurisdictions (Interviews 5 and 8).

In such centralized governance structures, decision-making authority, budget allocations, and policy directives emanate from the central government, relegating local authorities to subordinate roles. As a result, local governments often find themselves marginalized in the policymaking process, with their concerns and initiatives receiving scant attention from central administrations. The hierarchical nature of these systems reinforces a top-down approach to governance, wherein the central government exerts considerable control over the direction and implementation of policies, often at the expense of local autonomy and agency.

Furthermore, the bureaucratic machinery of highly centralized systems tends to prioritize centralized interests and objectives, relegating local concerns to the periphery. Administrative processes and decision-making procedures cater to the needs and preferences of the central government, leaving little room to accommodate the diverse perspectives and priorities of local communities. Consequently, local initiatives aimed at

addressing pressing issues, such as climate change, often encounter indifference from central authorities, hindering their efficacy and impact.

The disparity in resources and influence between central and local governments exacerbates the power dynamic. Central governments typically command greater financial resources, legislative authority, and access to international platforms—assets that can easily overshadow those of local entities (Interviews 5 and 8). An interviewee from South Korea explained,

> Local governments have very low financial independence. Key positions in local governments, such as Chief Policy Officers, Deputy Mayors for Economic Affairs, and Deputy Mayors for Political Affairs, are often seconded from the central government. Additionally, many chiefs of staff are dispatched from the Ministry of the Interior and Safety, allowing the central government to exert significant control over local governments. Funding is distributed to local governments through subsidies, further reinforcing central control (Interview 8).

Another interviewee from South Korea stated,

> Exercising autonomy involves control over the organization, personnel, finances, and self-governance legislation. Financially, local governments are heavily dependent on the central government because the majority of revenue comes from national taxes. This leaves local governments in a financially reliant position. The level of autonomy in terms of legislative authority is also poor, and with regard to organizational control, personnel is tightly regulated. Local governments cannot operate independently with their own financial resources due to the structure where the central government supplements them with grants. … Discretionary spending has decreased, making financial independence even more challenging. … Instead of local governments initiating their own projects, they end up simply executing what the central government dictates. When local governments try to create something that reflects regional characteristics and conditions, it becomes excessively difficult.

This imbalance often results in a situation where local efforts, no matter how well-conceived or executed, are marginalized in the broader national policy context. Even when local governments manage to attract attention to their initiatives, these efforts can be overshadowed or sidelined by the central government's broader policies and agendas, which may not always align with the local priorities or approaches. Therefore, it is crucial to scrutinize how central governments perceive and respond to the paradiplomatic activities of local governments, particularly in the context of climate change.

One might question whether centralized governments would be threatened if their cities were to engage in independent foreign policy, given the traditional authority of the central government over international relations. Central governments, particularly in highly centralized systems, are often wary of subnational entities conducting activities that might appear to diverge from national policies, especially on the global stage. However, in a centralized system, it is nearly impossible for local governments to engage in paradiplomatic activities at a level that could fundamentally challenge or contradict the national government’s official stance.

This limitation arises primarily because centralized governments tightly control the resources, legal authority, and diplomatic channels necessary for formal international engagement. Most local governments lack the infrastructure, financial resources, and political influence needed to establish direct, impactful relations with foreign states. Even when cities participate in global networks or pursue environmental agreements, these activities are generally symbolic or collaborative rather than politically autonomous actions that could rival national policy. Additionally, many centralized governments

impose legal restrictions on local governments, limiting their capacity to independently negotiate or enter into binding international agreements.

As a result, while cities in centralized systems may engage in paradiplomacy to address local needs—such as joining transnational environmental networks or attending international conferences—the scope of their actions remains largely supplemental. Their initiatives are unlikely to escalate into significant threats to national policy coherence or sovereignty, given the extent to which the central government retains the ultimate authority over diplomatic matters and can curtail any local actions that begin to diverge from its interests.

6.3.2 The United States

In federal countries with a less centralized system of governance, the disparity in engagement between central and local governments is generally less pronounced. Federal systems inherently distribute power and authority between the central government and subnational entities, such as states or provinces, allowing for greater autonomy and flexibility at the local level. This decentralization fosters a more collaborative approach to governance, where central and local governments work together to address common challenges, including climate change.

Historical Context and Decentralization

According to Leffel (2018), decentralization has played a critical role in shaping municipal foreign policy in the United States. During the late 1970s and early 1980s, the

“new federalism” initiatives led by Presidents Richard Nixon and Ronald Reagan transferred more responsibilities to state and local governments. These responsibilities included managing the influx of Southeast Asian refugees, establishing positions in international markets, and addressing challenges related to oil prices and petrol shortages, often without comprehensive federal policies to guide them (Leffel 2018).

Leffel (2018) emphasizes that political circumstances affect municipal foreign policy, suggesting that in authoritarian or non-democratic systems, such policies are hindered or entirely blocked. In contrast, the democratic structure of the United States provides cities with enough political and legal autonomy to challenge the federal government, with the Tenth Amendment playing a particularly important role in this regard (Leffel 2018). Moreover, Leffel notes that city diplomacy gained momentum due to the decentralization brought about by the new federalism.

The National Government's Role and Collaborative Mechanisms

Despite the distribution of powers, the national government still plays a significant role managing the relationships between different levels of government. This is often achieved through grants and assistance programs directed toward individuals, private institutions, and state and local governments. These mechanisms enable the national government to exert influence and ensure a degree of uniformity across states while respecting the autonomy granted to the states under the Tenth Amendment.

A notable example of this collaborative approach can be observed in the United States, where the federal system grants considerable autonomy to individual states. In

recognition of the importance of subnational engagement in diplomacy and international relations, the U.S. government established the position of U.S. Special Representative for City and State Diplomacy in 2022. First held by Nina Hachigian during the Biden administration, this role serves as a liaison between the federal government and states, with a focus on strengthening ties and promoting the interests of subnational entities on the international stage.

Through initiatives led by the U.S. Special Representative for City and State Diplomacy, efforts have been made to amplify the voices of states and municipalities in global forums, ensuring that their perspectives and priorities are adequately represented in international discussions on issues such as climate change. By facilitating dialogue and cooperation between the federal government and states, this position fosters a more cohesive and coordinated approach to diplomacy and policymaking, thereby enhancing the effectiveness of U.S. engagement with the international community.

The U.S. Special Representative for City and State Diplomacy has made notable strides to incorporate local perspectives into U.S. foreign policy and to enhance international collaboration at the subnational level. Following the establishment of the Subnational Diplomacy Unit, the office worked to facilitate the connection between local governance and global challenges, acknowledging that cities and states are key players in addressing issues such as climate change, public health, and economic development (Office of the Spokesperson, 2024).

Among the office's major achievements has been the organization of the inaugural Cities Summit of the Americas in Denver in April 2023, which convened local

leaders to tackle common challenges and explore international opportunities (Office of the Spokesperson, 2024). Ambassador Hachigian's team also fostered partnerships between U.S. mayors, governors, and their global counterparts, facilitating the exchange of innovative solutions to pressing issues like climate change. To bring foreign policy closer to the American public, the office spearheaded educational initiatives, including promoting programs such as the Gilman Scholarship and conducting over 30 outreach events to engage students and communities across the country (Hachigian, 2024).

In terms of climate policy, the Special Representative's office has bolstered U.S. involvement in global platforms like COP28 and a G7 roundtable on subnational climate efforts (Hachigian, 2024). Additionally, it has provided briefings for local leaders on international environmental negotiations and launched the Cities Forward Initiative, which pairs U.S. cities with counterparts in Latin America and the Caribbean to facilitate collaboration on sustainable development projects (Hachigian, 2024).

These efforts highlight the Special Representative's success at empowering local leaders to use their distinct positions to further U.S. foreign policy objectives while addressing critical local and global challenges. Moreover, the existence of such a position underscores the recognition of the valuable role that subnational entities play in advancing national interests and addressing global challenges. Rather than viewing states and municipalities as subordinate actors, the U.S. government acknowledges their agency and capacity to contribute meaningfully to international affairs. This shift toward a more inclusive and decentralized approach to diplomacy reflects a broader trend toward recognizing the importance of subnational engagement in global governance.

6.3.3 Belgium

Belgium’s involvement in transnational cooperation is supported by European legal frameworks, and it is aligned with other European states that are active in promoting regional diplomacy. The most notable relevant legal instruments include the Council of Europe’s Madrid Convention, adopted on May 2, 1980, and the European Charter of Local Self-Government, dated October 15, 1985, both of which underline the importance of regional and local government roles in cross-border cooperation (Keating 2000). Unlike some of its European counterparts, Belgium's constitution explicitly grants international competence to its regions and communities, ensuring that subnational entities can act as true participants in international affairs. This unique constitutional structure is built on the principle of in foro interno, which means domestic powers extend to the international arena (Paquin 2020).

Belgium’s framework allows regions to manage international relations in areas that correspond with their domestic jurisdictions. This alignment is reinforced by national legislation and supported by European programs such as INTERREG, which promotes cross-border partnerships (Keating 2000). These programs have helped solidify Belgium's commitment to fostering regional and international cooperation and demonstrate how subnational governments are empowered to engage in paradiplomacy (Keating 2000).

The Belgian federal government, while it recognizes and supports this subnational autonomy, plays a key role coordinating with regions and ensuring the alignment of their positions with national foreign policy. This cooperative yet supervisory relationship helps

maintain a balance where regional governments contribute to the country's international presence without conflicting with federal strategies. Although the national government does not hold a superior hierarchical status above regional representatives, it facilitates discussions and mediates between the different levels of government to foster unified policy stances and coordinated action (Paquin 2020).

Belgium's oversight approach involves ensuring that regional governments' international actions comply with national and international laws. This regulatory framework maintains the legality and financial integrity of public spending without overtly restricting regions' autonomy. The federal government also provides platforms for communication and reporting to keep track of international initiatives undertaken by regional governments. This coordination helps prevent any potential conflicts between regional and national interests and strengthens Belgium's overall foreign policy effectiveness.

A vital aspect of Belgium's system is the active engagement and negotiation required between the federal government and regional actors. In cases where international treaties or policy commitments impact areas under regional jurisdiction, both levels of government must work together to establish agreement. This collaboration underscores the importance of dialogue and mutual support, ensuring that Belgium's international activities reflect a comprehensive, multi-tiered approach.

Belgium's small size likely facilitates negotiations to some extent, as geographic proximity and the relatively small number of administrative layers make communication and coordination between the federal and regional governments efficient. Unlike in a vast

country like the United States, where states with diverse interests may complicate negotiations, Belgium's compact scale allows for more direct and frequent interactions among key stakeholders. However, size alone does not determine the ease of negotiations—political dynamics, institutional structures, and the willingness of different levels of government to collaborate are also crucial factors.

Belgium's regional governments actively participate in international discussions, establish partnerships, and collaborate on global projects that align with their political, economic, and cultural interests. This is facilitated by the constitutional guarantee of their right to paradiplomacy. The federal government, in turn, benefits from these localized international efforts, which enhance Belgium's soft power and contribute to broader national objectives through regional initiatives (Keating 2000).

For instance, since the 1993 constitutional revision, Flanders, one of the three official regions in Belgium, has had the authority to conduct its own foreign relations in areas within its jurisdiction, such as culture, education, and environmental policy (Criekemans, 2010). Leveraging this constitutional framework, Flanders has established an independent diplomatic approach, including its own foreign affairs ministry and 11 representative offices abroad.[7]

Despite the federal government's supervisory role, it generally supports regional paradiplomacy, as it often complements national foreign policy goals. Regional governments, through their specialized knowledge and targeted interests, help implement

[7] Flanders has political representatives in The Hague, Paris, Berlin, London, Geneva, Brussels (EU), Madrid, Warsaw, Pretoria, Vienna and New York (Criekemans, 2010: 17).

broader national strategies and strengthen Belgium's international standing. The collaborative nature of Belgium's approach ensures that while regional voices are empowered, they operate within a framework that aligns with national priorities. Instances of discord between the federal and regional levels are rare, highlighting the cooperative aspect of Belgium's model.

In essence, Belgium's system exemplifies a balance between regional empowerment and national oversight. This hybrid approach allows regional and community governments to play vital roles in international affairs while reinforcing the broader foreign policy objectives of the state. By integrating regional expertise and initiatives, Belgium's approach to paradiplomacy enhances its influence on the global stage and ensures that the interests of both regional and national actors are represented.

6.3.4 Spain and Catalonia

The relationship between Catalonia and the Spanish central government in environmental policy reflects deep-rooted political, administrative, and ideological tensions. These conflicts are particularly evident in the interplay between regional autonomy and national oversight in climate governance.

Enguer and Navarrete (2023) highlight how political parties in Catalonia strategically emphasize climate change in their manifestos to assert regional authority and autonomy. By showcasing strong pro-climate policies—focusing on environmental preservation, agriculture, low-carbon transport, and carbon sinks—these parties differentiate themselves from the national government. Climate initiatives are often

intertwined with decentralization and separatist agendas, using environmental policy as a political tool to reinforce Catalonia's regional identity and push for greater self-governance. This dynamic makes Spain's case particularly distinctive.

Ultimately, Catalonia's experience demonstrates how climate policy can function not only as a response to global challenges but also as a battleground for regional-national political struggles, complicating efforts to achieve sustainable and cohesive environmental governance.

6.4 Discussion

6.4.1 Consequences

Where national governments and cities lack alignment, policies can become fragmented and inconsistent. If a city, for instance, takes on ambitious climate initiatives that are not supported by its national government, it may struggle to fully implement them, resulting in only partial or piecemeal measures. This discordance can undermine comprehensive responses to complex issues, especially in areas where cooperation at the local, national, and even international level is essential. Without a cohesive framework, global governance can become fractured, with different policies and approaches clashing or even contradicting one another. For environmental issues like climate change, which demand coordinated global action, such fragmentation can be a critical hindrance, limiting both the effectiveness and reach of individual initiatives.

Where nation-states support city-led initiatives, however, cities have the potential to become significant agents of change. Nationally backed cities can implement

innovative local solutions to global problems and contribute meaningfully to international agendas, especially in the area of climate governance. Empowered cities can develop localized responses to pressing challenges, such as housing, public health, and climate resilience, that are often best addressed at the municipal level. When successful, these city-led projects can serve as national policy models, offering tested approaches that might be adopted more broadly. This bottom-up contribution to policy innovation allows cities to move from mere implementers of national strategies to influential partners in shaping them.

Yet, as larger, wealthier cities take on new international roles, smaller cities with more limited resources might find themselves left out of global governance discussions. Major cities such as New York, Paris, and Tokyo have the economic and political leverage to engage robustly in international networks, but smaller municipalities may lack the means to participate at the same level. This disparity can lead to marginalization, with smaller cities missing out on valuable opportunities for funding, collaboration, and global visibility. If national governments prioritize support for prominent cities, the resulting inequality could exacerbate existing disparities, creating a global landscape where only a few urban centers wield significant influence on international policy.

Finally, as cities succeed in their international efforts, national governments may feel pressure to support or at least to acknowledge local initiatives to maintain public approval and political legitimacy. Where national governments fail to respond to local successes, they risk facing public dissatisfaction, as citizens may view their cities as more responsive to urgent needs than the national government. This dynamic may lead central

authorities to adopt more flexible policies toward paradiplomacy, fostering a cooperative approach that allows cities to continue contributing effectively to international goals.

6.4.2 Paradiplomacy in Comparative Perspective: Lessons from the United States, South Korea, and Belgium

A comparative discussion of paradiplomacy in the United States, South Korea, and Belgium provides insight into how these countries handle the complex interplay of local and national governance in international relations. One of the primary points of comparison is the degree of decentralization in each state and its impact on paradiplomacy. The United States, with its federal system, provides states with considerable autonomy as outlined in the Tenth Amendment. This decentralization allows subnational entities to engage in independent international activities. Regarding cities, the U.S. Special Representative for City and State Diplomacy has encouraged subnational entities to engage in global cooperation. In Belgium, the constitutional framework grants regional governments full international competence that parallels their domestic powers, creating a formalized and robust paradiplomatic system.

In contrast, South Korea, with its history of centralized governance, provides limited support for local paradiplomacy despite the decentralization efforts that have taken place in recent decades. In Spain, the relationship between the central government in Madrid and the local government of Catalonia is characterized by a balance between decentralization and central oversight. While significant powers—such as those related to health, education, and transportation—have been devolved to autonomous communities,

the central government retains control over national matters like defense, foreign policy, and fiscal policy (Forum of Federations, 2005). The relationship between Catalonia and the Spanish central government regarding environmental policy highlights deep-seated tensions over decentralization and autonomy, as Catalan political parties strategically use climate initiatives to assert regional authority, while a lack of collaboration and trust hinders effective governance and progress on ecological issues. Financially, "the central government controls not only the main sources of income, but also the management of the financial system" (Forum of Federations, 2005).

The historical context and development of paradiplomacy in each country also differ markedly. In the United States, decentralization during the "new federalism" era in the 1970s and 1980s transferred responsibilities to local governments, empowering them to address global issues independently. Belgium's system evolved from a need to balance linguistic and cultural diversity, which led to significant regional autonomy in both domestic and international affairs. In South Korea, the history of centralized governance under "developmental authoritarianism" restricted local autonomy for decades. Even following the decentralization reforms in the 1990s, local governments have faced significant barriers when attempting to engage internationally.

Based on this discussion, I hypothesize that decentralization and paradiplomacy will be positively correlated:

Decentralization Hypothesis*: The degree of decentralization in a country positively correlates with the extent and effectiveness of paradiplomacy by subnational actors.*

The level of government support and oversight varies across these cases. The United States supports paradiplomacy through collaboration between state and national governments, although the latter retains authority over formal international treaties. Belgium's regions act independently on international issues within their jurisdictions, but the national government coordinates with them to maintain policy coherence. In South Korea, the central government shows indifference or minimal support for local paradiplomacy. This is due to a combination of bureaucratic compartmentalization and prioritization of domestic concerns.

Each country's structural and legal framework also reflects their unique approaches to paradiplomacy. The United States benefits from a clear constitutional basis that empowers subnational entities to engage internationally. Belgium's constitution provides even greater autonomy to its regions, enabling them to participate in international relations on matters within their competence. South Korea, on the other hand, lacks a strong formal legal framework to support local paradiplomacy, forcing cities to act without clear legislative backing. Thus, legal frameworks are likely also correlated with paradiplomacy:

Legal Framework Hypothesis*: The presence of formalized legal frameworks governing paradiplomacy enhances the clarity and coordination of international actions by subnational entities.*

The motivations behind paradiplomacy also vary. In the United States, cities and states engage in global cooperation to address local economic, environmental, and social issues. Belgium's regions are driven by cultural and linguistic identity, leading to active participation in international matters. In South Korea, local leaders push for participation in global initiatives like sustainability forums, but face challenges due to limited national support and a historically centralized focus.

All three cases illustrate challenges and limitations. In the United States, conflicts can arise when local entities' international policies conflict with federal positions, making coordination complex. Belgium's system, while empowering for subnational actors, can lead to decision-making delays when consensus is required among regional and national actors. South Korea experiences even greater challenges, with bureaucratic fragmentation and a lack of resources hindering the development of effective paradiplomacy.

Examples of paradiplomacy in practice illustrate varying levels of engagement and success. In the United States, California's participation in global environmental initiatives showcases how states can independently pursue international cooperation. In 2022, California strengthened its global climate partnerships by formalizing agreements with various international and regional entities (Governor Gavin Newsom, 2022). The state signed Memorandums of Cooperation with Canada, New Zealand, and Japan, while also establishing Memorandums of Understanding with China and the Netherlands to address the climate crisis collaboratively (Governor Gavin Newsom, 2022).

Belgium's regions actively participate in European programs such as INTERREG that facilitate cross-border collaboration. South Korea's cities, including Seoul and

Suwon, have joined global sustainability initiatives, yet these efforts are primarily driven by local leadership without substantial national backing.

Policy recommendations for improving paradiplomacy in these countries include fostering better coordination in the United States to align state and federal policies, and streamlining processes in Belgium to prevent stalemates. For South Korea, developing clearer legal frameworks and allocating more resources to support local initiatives would help bridge the current gaps.

In comparing these countries, a major lesson is the importance of balancing local autonomy with national policy coherence. Federal and semi-federal systems like those in the United States and Belgium show how shared sovereignty can work effectively, while the centralized structures in South Korea highlight the challenges of limited support and oversight. Supporting local paradiplomacy can enrich a country's overall diplomatic efforts and adaptability, but overcoming bureaucratic fragmentation is crucial for enabling cohesive and impactful international engagement.

6.4.3 Conclusion

The response of central governments to the paradiplomacy initiatives undertaken by local governments reveals a deeply complex relationship that is shaped by historical legacies, structural governance dynamics, and the broader distribution of political authority. This chapter unpacks these dynamics by examining the varying degrees of engagement and support provided by central governments in four distinct contexts: South Korea, the United States, Belgium and Spain. This comparative analysis illuminates the

critical factors that facilitate or impede local governments' effective engagement in global environmental governance.

The varying degrees of support, oversight, and autonomy in these cases offer lessons for enhancing paradiplomacy across governance systems. One key takeaway is the importance of balancing local autonomy with national policy coherence to prevent fragmented or conflicting approaches. Federal systems like those in the United States and Belgium illustrate how shared sovereignty can empower regions and foster innovation while maintaining policy consistency. Meanwhile, South Korea shows that centralized or semi-centralized models can create obstacles to effective local participation in international networks unless mechanisms are put in place to bridge local and national interests.

This chapter also highlights the broader implications of these dynamics for multilevel governance and the global effort to address climate change. As cities and local governments increasingly take on the mantle of leadership to address environmental challenges, the response of central governments becomes a critical factor in determining the overall effectiveness of these efforts. The central government's stance—whether supportive, indifferent, or oppositional—can shape the trajectory of local climate action and, by extension, the success of national and global climate goals.

Ultimately, this chapter calls for a rethinking of the traditional hierarchical relationship between central and local governments in the context of global governance. As the challenges posed by climate change and other global environmental issues

continue to grow in complexity and scale, it is imperative that governance structures evolve to reflect the realities of a more interconnected and interdependent world.

Chapter 7 Conclusion

7.1 Review

A central argument of this research is that climate vulnerability alone is not a reliable predictor of ETMN participation. Contrary to assumptions that immediate environmental risks drive membership in international climate networks, the findings reveal that a city's political orientation and ambitions to enhance its global reputation are the primary motivators. U.S. cities with Democratic-leaning leadership and South Korean cities with progressive governance are significantly more likely to join ETMNs, particularly ICLEI and GCoM.

However, C40 membership in the United States follows a different pattern, where economic and strategic positioning outweigh political ideology, demonstrating that these are what drive elite network participation. Additionally, in the United States, coastal cities consistently show higher participation rates across networks, highlighting how geographic vulnerability interacts with political will to shape city's engagement in global climate governance.

The findings lend strong support to a liberal institutionalist perspective, highlighting the central role of domestic political factors—especially progressive leadership—in driving city participation in ETMNs like ICLEI and GCoM. Rather than responding primarily to climate vulnerability, cities engage in these networks to advance domestic political agendas, signal policy priorities, and enhance institutional credibility on the international stage.

In addition to the political orientation of cities' leaders, external persuasion by influential actors significantly influences the timing of cities' decisions to join ETMNs. Mayors' ambitions to position their cities as global sustainability leaders drive proactive membership and sustained engagement in ETMNs. Once cities join, the institutional capacity of local governments—especially the leadership of dedicated public servants—plays a decisive role in maintaining momentum, ensuring that participation translates into tangible climate policies and actions.

The dissertation also underscores the impact of governance structures on municipal engagement in ETMNs. In federal systems like the United States and Belgium, cities benefit from greater autonomy, enabling them to pursue climate initiatives independent of national directives. In contrast, centralized states like South Korea impose stricter controls, limiting the scope of municipal paradiplomacy. However, even within centralized systems, local autonomy—where it exists—correlates with higher ETMN participation, suggesting that decentralization can enhance local–global climate collaboration. These findings reinforce the need for policy frameworks that empower municipal actors, reduce bureaucratic barriers, and facilitate coordinated multi-level governance to maximize the effectiveness of transnational climate networks.

This dissertation makes a scholarly contribution by advancing empirical knowledge on the determinants of city-level participation in Environmental Transnational Municipal Networks (ETMNs), with a particular emphasis on the influence of political ideology. By leveraging an original set of data and employing a rigorous mixed-methods

framework—incorporating both quantitative statistical modeling and in-depth qualitative analysis—this study offers a nuanced reassessment of several prevailing theoretical claims in the existing literature. Specifically, it revisits and substantiates the proposition that political orientation plays a substantial role in shaping municipal decisions to affiliate with international environmental networks such as ICLEI (Local Governments for Sustainability).

To the best of my understanding, this is the first academic work that systematically investigates, through qualitative inquiry, the underlying motivations and enabling conditions that drive South Korean cities to join ICLEI. This comparative exploration of South Korean and, in part, U.S. city cases adds new empirical depth to the transnational municipalism literature by contextualizing decisions within specific political, institutional, and administrative settings. The findings offer robust support for the hypothesis that ideological alignment is a key predictor of membership, while simultaneously casting doubt on the explanatory power of environmental vulnerability—a factor often cited in previous studies as a core determinant. In doing so, the dissertation helps disentangle competing explanations and elevates the importance of political will over reactive adaptation needs in the calculus of local climate engagement.

Beyond this theoretical clarification, the research also sheds light on the internal governance dynamics that shape both entry into and sustained engagement with ETMNs. The analysis reveals that charismatic or visionary leadership—typically embodied by mayors or other high-profile city officials—is often instrumental in initiating membership. However, the continuity and effectiveness of policy implementation

following accession to these networks is shown to rely heavily on institutionalized administrative capacity, particularly the presence of committed and knowledgeable public servants who manage day-to-day climate-related tasks. This contrast underscores the dual temporal nature of transnational network engagement: a symbolic, politically motivated initiation phase followed by a prolonged, operational phase that requires bureaucratic persistence and organizational resources.

Finally, by drawing upon rich case narratives and comparative examples, the dissertation contributes to a broader conceptual conversation about the evolving relationship between national and subnational actors in global environmental governance. It not only offers grounded insights into the mechanics of local participation in international regimes but also generates new theoretical propositions regarding vertical coordination, policy diffusion, and the role of municipal autonomy in international climate action. In this way, the study opens up promising directions for future research at the intersection of urban politics, international relations, and climate policy.

7.2 Future Research

While this dissertation provides valuable insights into municipal engagement in ETMNs, it also opens avenues for further research. First, future studies could expand the geographical scope to include cities in the Global South, where climate vulnerability and governance contexts differ significantly from those in the Global North. Understanding how cities in regions like Africa, Latin America, and Southeast Asia engage with ETMNs could provide a more comprehensive picture of global urban climate governance.

For instance, a future study could analyze how cities in Africa, such as Nairobi or Cape Town, engage with ETMNs.[8] These cities face unique climate challenges like water scarcity and rapid urbanization. Investigating their participation in ETMNs and their adaptation strategies could reveal how governance structures in the Global South differ from those in the Global North.

Another potential research avenue could compare how cities in Latin America (e.g., São Paulo) and Southeast Asia (e.g., Jakarta) leverage ETMNs for climate resilience. Both regions experience high vulnerability to extreme weather events like hurricanes and floods. However, variations in governance, economic resources, and political priorities might shape their engagement with ETMNs. Such an analysis would offer a richer understanding of urban climate governance on a global scale.

Second, more research is needed on the interplay between ETMNs and other transnational networks, such as those focused on human rights, public health, or economic development. Exploring how cities navigate multiple networks and align their priorities across different issue areas can offer insights into the broader dynamics of urban diplomacy.

For example, a future study could explore how cities that are active in ETMNs also engage with transnational economic development networks, such as the World

[8] Nairobi and Cape Town have been a member of the C40 Cities Climate Leadership Group since 2014. Additionally, Cape Town has been involved with ICLEI – Local Governments for Sustainability since 1994.

Economic Forum's Global Future Council on the Future of Cities or the United Nations Industrial Development Organization (UNIDO). For instance, cities like Singapore, Amsterdam, and San Francisco are both climate leaders and economic hubs, meaning they must balance sustainability goals with industrial growth and investment attraction. Researching how these cities align their ETMN commitments with economic development initiatives—such as attracting green investments, fostering low-carbon innovation hubs, or integrating sustainability into trade policies—could provide valuable insights into the interconnected nature of climate and economic governance at the urban level.

Third, longitudinal studies tracking the long-term impacts of ETMN membership on cities' climate policies and outcomes are essential. While this dissertation highlights cities' initial motivations for joining ETMNs and their sustained engagement in these networks, future research could assess whether ETMN participation leads to measurable improvements in climate resilience or emissions reductions over time. For example, a study could investigate whether Copenhagen and Stockholm, cities that are both active in ETMNs, have successfully achieved their net-zero emissions targets. With Copenhagen aiming for carbon neutrality by 2025 and Stockholm by 2040, this research would assess whether long-term emissions data indicates that ETMN membership accelerates progress toward these goals and explore the challenges cities face in sustaining green policies despite economic and political fluctuations. A comparative case study utilizing official emissions reports, policy reviews, and expert interviews could provide insights into how ETMN participation has influenced long-term urban decarbonization.

Another critical area for future inquiry is the long-term impact of external validation, such as international recognition and branding, on the depth and quality of cities' engagement with ETMNs. Further studies could analyze under what conditions branding efforts evolve into substantive institutional commitments. To illustrate, Dubai has aggressively branded itself as a leader in sustainability, setting ambitious net-zero goals and hosting COP28. Future research could assess whether this international validation leads to concrete policy implementation, such as decarbonizing its construction sector, reducing reliance on fossil fuels, or expanding renewable energy initiatives. Has external recognition pushed Dubai to institutionalize its sustainability commitments, or is it primarily a branding exercise to attract global business and investment?

Finally, additional research is needed on the role of non-state actors, such as businesses and non-governmental organizations, in supporting cities' engagement with ETMNs. Understanding how these actors collaborate with local governments and influence urban climate policies can provide a deeper understanding of multilevel climate governance.

7.3 Policy Implications

Cities play a dual role in the climate crisis, acting both as major contributors to greenhouse gas emissions and as key innovators in sustainability. Urban areas account for over 70% of global CO_2 emissions due to their high levels of energy consumption, transportation, and industrial activity. However, cities are also leading efforts to mitigate

climate change through ambitious policies such as low-emission zones in London, car-free city centers in Oslo, green infrastructure projects in Singapore, and the sponge cities initiative in China. These efforts demonstrate that cities are not only responsible for significant environmental impact but also possess the tools and political will to drive meaningful climate action at the local level.

As climate-skeptic, right-wing governments have risen to power in several countries, cities have increasingly taken on the responsibility of implementing progressive climate policies. In the United States, for instance, the Trump administration's withdrawal from the Paris Agreement led cities such as Los Angeles, New York, and Chicago to reaffirm their commitments to emissions reductions by joining ETMNs. Similarly, in Brazil, where President Bolsonaro weakened environmental protections and encouraged deforestation, local governments in cities like São Paulo and Rio de Janeiro pursued independent sustainability initiatives. These examples highlight how cities, often in opposition to national leadership, are becoming the new vanguard of climate governance, stepping up when federal policies fail.

Policy recommendations should align with the distinct goals of each stakeholder—ETMNs, cities, and national governments—to foster effective climate action and cooperation. For ETMNs, policies should prioritize expanding membership by offering clear incentives, strengthening knowledge-sharing platforms, and fostering collaboration among members. Demonstrating tangible benefits, such as access to technical expertise, financial resources, and policy support, can attract more cities and enhance ETMNs' capacity to drive impactful climate initiatives.

To ensure meaningful engagement, policies should also support member cities in implementing ambitious mitigation and adaptation measures. This can be achieved through technical assistance, financial incentives, and best-practice frameworks that make participation in ETMNs more actionable and results-driven.

Additionally, ETMNs can enhance their communication strategies to better highlight the advantages of membership. Sharing success stories, showcasing measurable impacts, and providing concrete examples of member benefits can help cities recognize the strategic value of active involvement. Tailored engagement approaches, such as customized capacity-building workshops, targeted technical support, and resources designed to meet cities' specific needs, can further strengthen commitment. By aligning their offerings with the unique challenges and priorities of local governments, ETMNs can foster stronger, more enduring participation.

To tailor recommendations for each ETMN in the United States and South Korea, this dissertation highlights that political leadership, governance structures, and strategic incentives play a more significant role in ETMN participation than climate vulnerability alone. Sustainability networks should prioritize outreach to cities where political leadership aligns with their environmental goals, as political orientation is the strongest predictor of membership—particularly for ICLEI and GCoM in both countries.

In the United States, coastal cities present natural opportunities for ICLEI and GCoM expansion, given their exposure to climate risks and existing policy orientations. In contrast, C40 should focus on large, dense, and economically strategic cities,

emphasizing the economic benefits of membership rather than ideological alignment. Additionally, outreach efforts should extend to high-risk but non-participating cities, as climate vulnerability alone does not drive membership decisions.

In South Korea, where ICLEI membership is heavily influenced by political affiliations, expanding participation may require engagement strategies that appeal to conservative or politically neutral municipalities. GCoM, on the other hand, could benefit from a broader awareness campaign that moves beyond political divides to highlight the tangible benefits of network participation. Since financial capacity is not a barrier to membership, outreach strategies should focus on securing local government commitment and demonstrating the practical value of participation rather than relying on financial incentives.

For cities, policies should address both the motivations for joining ETMNs and the mechanisms that enable them to maximize their benefits after joining. To encourage participation, policies should highlight the reputational and economic advantages of membership, such as increased global visibility, improved access to funding, and stronger collaboration with other climate leaders. However, joining an ETMN does not automatically lead to meaningful climate action—cities ultimately decide whether and how they will engage. Some may question whether cities are obligated to act, but that is not the case; participation remains a choice.

To ensure that membership translates into tangible outcomes, policies should support cities in actively engaging with ETMNs by integrating network initiatives into

local governance structures and providing public servants with the necessary resources and institutional backing. Capacity-building programs and targeted training for local officials can further help cities implement best practices, reinforcing ETMNs as effective platforms for advancing sustainability goals.

If cities experience a high rate of bureaucratic turnover, training programs for public servants should be specifically tailored to ensure continuity in ETMN engagement. New public servants must be equipped with a clear understanding of past collaborations with ETMNs, ongoing initiatives, and projects that have been effective or are on the verge of successful implementation. Establishing institutional memory through structured documentation, knowledge-sharing platforms, and transition protocols can help maintain consistency in city-level climate action. By ensuring that new officials build upon existing efforts rather than starting from scratch, the effectiveness of ETMNs can be maximized, fostering long-term impact and sustained progress in climate initiatives. As cities grow and confront increasingly complex climate challenges, these policy recommendations provide a comprehensive roadmap for fostering resilient, adaptable, and sustainable urban environments through coordinated, multi-level governance strategies.

For national governments, policies should focus on fostering alignment between national climate targets and the efforts of subnational actors. Recognizing that cities play a vital role in achieving Nationally Determined Contributions (NDCs), national policies should encourage and support city participation in ETMNs by providing financial incentives, regulatory frameworks, and technical guidance. Facilitating multi-level

governance mechanisms that integrate city-level climate actions into national strategies can enhance policy coherence and effectiveness. Additionally, national governments can leverage ETMNs as platforms to track local progress, gather data on emissions reductions, and report on climate commitments more comprehensively. By actively engaging with cities and recognizing their contributions, national governments can create a more coordinated and impactful approach to addressing the climate crisis.

More specifically, national governments should consider both decentralization and legal frameworks when fostering effective climate change paradiplomacy. If decentralization enhances the extent and effectiveness of subnational engagement in international climate actions, then policies should focus on granting cities and regions greater autonomy in climate governance. This could involve devolving decision-making authority, increasing financial resources, and enabling direct participation in transnational networks.

Simultaneously, a well-defined legal framework governing paradiplomacy can provide clarity, reduce conflicts between national and subnational actors, and ensure coordinated efforts toward international climate commitments. National policies should, therefore, establish clear guidelines that empower subnational entities while maintaining alignment with national climate goals. By balancing decentralization with legal institutionalization, governments can optimize the role of subnational actors in global climate governance, leading to more effective and coherent international climate actions.

A key limitation of this study is the potential issue of endogeneity in assessing policy outcomes. Cities that choose to join ETMNs may already be predisposed to implementing climate policies, meaning that observed policy changes may not be a direct consequence of network membership. As discussed in Chapter 5, selection effects and ETMN effectiveness are interrelated, raising the possibility that cities with strong institutional capacity, political commitment, or pre-existing sustainability initiatives are more likely to engage actively, rather than being fundamentally shaped by their participation in ETMNs.

Disentangling this endogeneity problem is inherently complex, as it is difficult to isolate whether ETMNs drive substantive policy changes or merely attract cities already inclined toward sustainability. This challenge underscores a broader methodological concern: if cities that would have pursued climate action regardless are overrepresented in ETMNs, the networks' actual influence on policy outcomes may be overstated. Addressing this issue requires careful empirical strategies to distinguish between correlation and causation in assessing the role of ETMNs in shaping urban climate governance.

Some may question whether ETMNs truly matter or whether they have a significant impact on addressing and combating the climate crisis. While ETMNs are not perfect agents, they provide cities with opportunities, information, advocacy, resources, and frameworks that they might not otherwise access or utilize effectively. Given the escalating urgency of the climate crisis and the increasing polarization or sluggish responses of national governments, the role of cities and ETMNs has become more vital

than ever. As national-level action stalls, cities are stepping up to fill the gap, leveraging ETMNs to implement innovative policies, share best practices, and coordinate transnationally. These networks enable municipalities to bypass bureaucratic inertia and act with greater agility, fostering a sense of shared responsibility and mutual learning that accelerates climate solutions.

Since their emergence and expansion in the 1990s, ETMNs have continuously strengthened their influence, demonstrating that local climate leadership can drive meaningful global change. They have cultivated a growing community of practice, where successes are replicated and scaled, and where failures become learning opportunities rather than dead ends. However, it is important to acknowledge a critical limitation in evaluating their overall effectiveness: much of the available evidence—including the case studies analyzed in this dissertation—comes from cities that have already chosen to engage with ETMNs. This raises the issue of selection effects, as cities that opt into these networks are likely to be more motivated, better resourced, or already more inclined toward climate action than their counterparts that remain outside the networks. Consequently, the positive impacts attributed to ETMNs may, in part, reflect pre-existing commitments or capacities within member cities, rather than the causal influence of the networks themselves.

The absence of data from non-member cities, particularly those where efforts to recruit them into ETMNs were unsuccessful, limits our ability to fully disentangle the effects of the networks from the characteristics of the cities that join them. This selection bias introduces a potential overestimation of the networks' effectiveness, as it obscures

the challenges and limitations ETMNs face in engaging less proactive or more resistant cities. Recognizing this limitation is crucial for a balanced assessment: while ETMNs have clearly played an important role in amplifying urban climate action, their broader transformative potential will ultimately depend on their ability to engage a wider spectrum of cities, including those that have so far remained on the sidelines.

Their past achievements, present momentum, and future potential still underscore their role in shaping a more sustainable and resilient planet. ETMNs are not merely support systems for cities—they may function as catalysts for action, illuminating a path toward a more sustainable future. Yet, understanding the selection effects at play tempers overly optimistic conclusions and highlights a key area for future research and policy focus: expanding the reach of ETMNs to less engaged cities and testing their capacity to drive change where enthusiasm and capacity are not already high. In doing so, ETMNs can move beyond preaching to the converted and begin to transform abstract climate ambitions into concrete local realities across a broader and more diverse urban landscape.

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Interview 1

Interview 2

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Appendix A Interview Protocol - Environmental Transnational Municipal Network Officers

Introduction

Good morning/afternoon/evening, my name is Yoonsoo Kim. I am a Ph.D. candidate in the Department of Political Science at the University of Minnesota. I am studying cities' engagement in environmental transnational municipal networks (ETMNs). The goal of this interview is to know when and why cities join which ETMNs and under what conditions they comply with any obligations incurred as joining these networks. Additionally, this interview is to probe whether cities circumvent the nation-states, and if so, when and why they do in addressing climate change.

Informed Consent Procedure

I would like to inform you that I will use this interview as factual and interpretative evidence for my dissertation. This interview will be anonymized unless you agree to use your real name. Your response will only be quoted directly to the extent that you agree. Before proceeding with the interview, do you agree to accept this interview? Do you agree about recording? If there is anything you don't want to be recorded, please tell me to stop recording, then I will stop recording. If you agree, we will proceed with the interview from now on. (Start recording)

Respondent's Name & Position

- Could you tell me your name and your position/role? How long have you been in this position?

- When you think about Environmental Transnational Municipal Networks, which ones come to your mind? (in order to get a sense of their background/concepts)

- How did you come to join this network?

Section 1: Commitment to ETMNs

1. How do local governments get to know and join [this network]?

2. (Let interviewees know that I know the basic requirements of joining this network.) Did I miss any requirements?

3. How do local governments react to the requirements of joining [this network]?

Section 2: Compliance with ETMNs

4. After joining [this network], I assume member cities will show different degrees of performance. Some would be successful, but others might show little or no progress. From your experience and expertise, what do you think makes this difference? How would you interpret this phenomenon?

5. How do you respond to the member cities that show good performance and/or bad performance?

Section 3: Relationship with National Government

6. How would you characterize the relationship between central and local governments when it comes to cities' participation in TMNS?

7. What is your interpretation of important outcomes of cities' diplomatic activities? How are they different from national governments' diplomatic activities?

8. How do member cities react to diplomatic events and global cooperation?

Section 4

9. Is there anything I didn't ask that I should have asked? What else might be important/useful for me to know?

Conclusion

This is the end of the interview. Thank you so much for your time and participation in this interview. If you don't mind, could you recommend another interviewee that I can reach out to? I would truly appreciate your help.

Appendix B Interview Protocol – Local Government Officials

Introduction

Good morning/afternoon/evening, my name is Yoonsoo Kim. I am a Ph.D. candidate in the Department of Political Science at the University of Minnesota. I am studying cities' engagement in environmental transnational municipal networks (ETMNs). The goal of this interview is to know when and why cities join which ETMNs and under what conditions they comply with any obligations incurred as joining these networks. Additionally, this interview is to probe whether cities circumvent the nation-states, and if so, when and why they do in addressing climate change.

Informed Consent Procedure

I would like to inform you that I will use this interview as factual and interpretative evidence for my dissertation. This interview will be anonymized unless you agree to use your real name. Your response will only be quoted directly to the extent that you agree. Before proceeding with the interview, do you agree to accept this interview? Do you agree about recording? If there is anything you don't want to be recorded, please tell me to stop recording, then I will stop recording. If you agree, we will proceed with the interview from now on. (Start recording)

Respondent's Name & Position (Warm-up Questions)

- Could you tell me your name and your position/role?

- How did you come to become a local government official?

- How long have you been in this position?

Section 1: Commitment to ETMNs

1. How do local governments get to know and join [this network]?

2. What do you think about the requirements of joining [this network]?

Section 2: Compliance with ETMNs

3. After joining [this network], do you reflect that [this city] has shown good progress in terms of compliance with the obligations that follow by joining this network?

4. What is your perspective on the monitoring/reporting mechanism?

5. Do you think of other member cities' performance?

Section 3: Relationship with National Government

6. What is your perspective/opinion about the relationship between local governments and national governments?

7. What is your interpretation of cities' diplomatic activities? How are they different from national governments' diplomatic activities?

8. How do you react to diplomatic events and global cooperation?

9. Is there anything I didn't ask that I should have asked? What else might be important/useful for me to know?

Conclusion

This is the end of the interview. Thank you so much for your time and participation in this interview. If you don't mind, could you recommend another interviewee that I can reach out to? I would truly appreciate your help.

Appendix C Interview Protocol – ICLEI USA

Introduction

Good morning/afternoon/evening, my name is Yoonsoo Kim. I am a Ph.D. candidate in the Department of Political Science at the University of Minnesota. I am studying cities' engagement in environmental transnational municipal networks (ETMNs). The goal of this interview is to know when and why cities join which ETMNs and under what conditions they comply with any obligations incurred as joining these networks. Additionally, this interview is to probe whether cities circumvent the nation-states, and if so, when and why they do in addressing climate change.

Informed Consent Procedure

I would like to inform you that I will use this interview as factual and interpretative evidence for my dissertation. This interview will be anonymized unless you agree to use your real name. Your response will only be quoted directly to the extent that you agree. Before proceeding with the interview, do you agree to accept this interview? Do you agree about recording? If there is anything you don't want to be recorded, please tell me to stop recording, then I will stop recording. If you agree, we will proceed with the interview from now on. (Start recording)

Respondent's Name & Position (Warm-up Questions)

- Could you tell me your name and your position/role?
- How did you come to become a local government official?
- How long have you been in this position?

Section 1: Factors Influencing Local Governments to Join ICLEI USA

1. How do climate risks, such as extreme weather events or rising sea levels, impact a city's decision to join ICLEI USA? Have you noticed that cities with higher climate vulnerability (e.g., coastal or disaster-prone areas) are more likely to join ICLEI USA? Why or why not?
2. How do financial resources, technical expertise, or administrative capacity affect a city's ability to join and actively participate in ICLEI USA? Are larger, resource-rich cities more likely to participate in ICLEI USA, or have you seen smaller cities with limited resources also take an active role? What factors enable their participation?
3. How does the political ideology of local leadership influence a city's decision to join ICLEI USA? Have you observed different participation trends based on whether a city is governed by left-leaning or right-leaning leaders?
4. To what extent do external actors—such as international organizations, the federal government, or advocacy networks—influence a city's decision to join ICLEI USA? Can you provide examples of cities that joined due to external persuasion rather than internal initiatives?

Section 2: Performance Differences Among ICLEI USA Cities

5. What factors contribute to the varying levels of success and commitment among cities within ICLEI USA?
6. Have you observed any best practices or common challenges that distinguish high-performing ICLEI USA cities from lower-performing ones?

Section 3: Federal Government Response to ICLEI USA

7. How has the U.S. federal government responded to ICLEI USA's activities? Have there been any policies, funding initiatives, or political pressures that have influenced ICLEI USA's operations?
8. In what ways, if any, has federal government support or opposition affected local governments' decisions to participate in ICLEI USA?

Conclusion

This is the end of the interview. Thank you so much for your time and participation in this interview. If you don't mind, could you recommend another interviewee that I can reach out to? I would truly appreciate your help.