GLOBE GLOBAL GOVERNANCE AND THE EUROPEAN UNION
Future Trends and Scenarios

REPORT

Multilevel Governance of Global Climate Change - Problems, Policies, and Politics

Case Studies of the EU, ASEAN, and National Climate Laws

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1. Introduction

How do global and regional climate targets, rules, policies, and standards emerge and under which conditions are they effectively enabled within domestic political systems? When and how do national policy innovations diffuse and who are the principle actors involved? This paper aims to shed light on the multilevel intermediation processes that shape climate policy development and implementation, with a particular focus the interplay between the United Nations Framework Convention on Climate Change (UNFCCC), regional multilateral institutions, and their member states.

As per the original project deliverable, the aim of this study is both descriptive – providing a detailed and historical perspective on "multi-level implementation of the UNFCCC regime through coordinated action within and between member states" – as well as analytical, namely, to assess its "effectiveness and ability to accelerate climate governance implementation". It builds upon earlier ground-clearing research that produced a comprehensive mapping of the current UNFCCC regime and the wider climate governance regime complex, illuminating scope for action by a wide variety of actors at all scales, from the sub-national to the highest global level of political assembly (Coen, Kreienkamp, and Pegram 2020). By focusing on interscalar interactions on the regional level, this paper zeroes in on particularly important dynamics within this complex ecosystem of global climate governance. More specifically, we compare governance arrangements in the European Union (EU), where supranational climate policymaking is most advanced, to those in the Association of Southeast Asian Nations (ASEAN), where regional cooperation on climate change remains very limited.[1] Regional organizations provide an instructive domain of analysis because they sit neither at the "top" nor at the "bottom" of the global climate change regime, providing vital governance (regulatory) as well as meta-governance (steering) functions.[2] Although there are significant differences between the EU and ASEAN, both case studies point to linkages between global, regional, and national climate governance, with the international framework setting boundary conditions for regional and national policy development and *vice versa*. However, while these linkages have, at several points in time, accelerated policymaking processes in the EU, they have created few opportunities for significant policy change within ASEAN.

Whereas our previous mapping of the global climate governance landscape employed scholarship on regime complexity to illustrate the growing institutional diversity on the inter-

[1] This emulates recent scholarship seeking to advance comparative leverage between the EU and ASEAN focused on institutional design, in light of temporal and spatial variation in regional integration processes (Hofmann and Yeo 2017).

[2] Meta-governance arrangements do not regulate or govern directly but rather engage in the "organization of self-organization" by providing ground rules for and ensuring the coherence and consistency of different governance regimes and mechanisms, whether through networks, markets, or hierarchical steering (Jessop 1998, p. 42).

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and transnational level, this paper aims to provide a more sophisticated account of the governance dynamics playing out within this cluster of institutional arrangements through a multilevel governance (MLG) lens. Given space constraints, our focus is on the UNFCCC regime, which remains at the core of the broader climate regime complex (Keohane and Victor 2011). While the regime complexity literature is primarily concerned with the rising density of institutions on the same level of governance and the resulting proliferation of overlapping rules (Alter and Meunier 2009), MLG is more concerned with linkages and interactions between multiple scales and levels of governance and how this affects where policymaking authority is located. This provides a useful frame for exploring if, how, when, and why the UNFCCC regime affects the design of regional and national institutional arrangements and how, in turn, actors at various levels of governance seek to shape the rules and institutions that make up the regime. We show how MLG structures can be exploited by progressive policy entrepreneurs, who advance novel policy solutions, as well as policy obstructers who, for various reasons, are invested in the status-quo. To do so, we employ John Kingdon's (1984) multiple streams framework (MSF), which highlights both the structural conditions that facilitate or impede non-incremental policy change – problem perception, availability of policy solutions, and political willingness – as well as the ability of different agents to exploit these conditions. Understanding these processes, and under which conditions they result in more ambitious climate action, is vital for any efforts to make existing governance arrangements more effective. As such, this paper speaks not just to scholars of global governance, International Relations, public policy, and related disciplines but first and foremost to policymakers at various levels of decision-making, seeking to better understand and reform policy processes.

We supplement the EU and ASEAN case studies – which focus primarily on vertical interactions in multilevel governance arrangements – with a case study on transnational policy diffusion, tracing how national climate framework laws have emerged as important governance tools for internalizing UNFCCC rules and norms, mostly in Europe but increasingly beyond. Climate laws are significant because they enshrine binding long-term mitigation targets and establish overarching governance frameworks to realize these targets. While they have primarily diffused horizontally, we also document how policy entrepreneurs have recently managed to "upload" the concept to the EU-level. Some design elements of climate framework laws are even reflected in the Paris Agreement. Because the latter does not set legally binding mitigation targets for individual countries, relying instead on voluntary national commitments, climate laws can provide an important "link between international obligations and national policymaking" (Nash and Steurer 2019, p. 1061). However, for mitigation commitments to be meaningful, accountability structures must be in place to ensure that targets are grounded in science and implemented effectively. As we will show, independent climate advisory bodies

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(ICABs) can play an important role in this regard – but only if they are properly resourced and vested with requisite powers. To date, only a handful of countries, primarily in Europe, have implemented strong and robust climate laws, with ambitious and quantifiable long-term targets, clear governance provisions, and ICABs that are not just offering scientific advice but also rigid progress monitoring. Meanwhile, in the ASEAN region, long-standing structural limitations to political accountability, participation, and civil society engagement have impeded the development of climate laws and formal ICABs. However, as we will argue, the emergence of informal monitoring regimes comprised of domestic civil society organizations could provide an alternative, albeit "softer", avenue for driving more ambitious climate action and holding governments to account.

This paper begins by introducing multilevel governance (MLG) and the multiple streams framework (MSF), which provide the theoretical anchor for our case studies. We then apply these concepts to reflect on the development of climate governance in the EU, with particular focus on the interplay between the EU and the UNFCCC. This is followed by a case study on ASEAN, where regional climate governance structures are much less developed and there is little coordinated engagement with the UNFCCC regime. To illustrate the diversity of national approaches within ASEAN and identify obstacles and opportunities for more sophisticated climate governance arrangements, we supplement the regional case study with reflections on the current situation in Indonesia and Singapore. The next part of the paper focuses on national climate framework laws, explaining their emergence and ongoing diffusion as well as weighing in on their potential as innovative governance solutions. The paper concludes by reflecting on the future of global, regional, and national climate governance in light of conflicting problem definitions and the need for urgent action, even in the face of other pressing challenges, such as the coronavirus (COVID-19) pandemic.

2. Understanding Multilevel Governance Dynamics: Problems, Policies, and Politics

This section introduces the main theoretical frameworks that inform our analysis. To understand what drives regional climate policymaking, we make use of John Kingdon's (1984) multiple streams framework (MSF), which has long been a mainstay of public policy analysis because its holistic perspective on policy processes and its unique ability to explain path-departing change. We combine the MSF framework with a multilevel governance (MLG) lens to reflect the empirical reality that climate policymaking on the local, national, regional, and international level is increasingly interdependent (Rietig 2020). These interdependencies can reinforce processes that favor policy change; however, as the MSF suggests, this is highly dependent on context, time, and – critically – agency. As such, the MSF-plus-MLG frame can

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not only explain policy change through a confluence of key dynamic factors or "streams" (*problems*, *policies*, and *politics*) but it can also account for long periods of statis when these streams do not overlap and agile policy entrepreneurs are absent. We start this section by introducing MLG as a governance logic and specifying why it is of relevance to the climate change regime under the UNFCCC. We then clarify how the MSF can help us understand if, when, and how policy entrepreneurs are able to successfully push for change in the context of multiple, interdependent governance levels. In the present study, we employ these frameworks primarily as an analytical framing device. However, the case studies also highlight opportunities for theory refinement – specifically regarding the scope for policy entrepreneurship in situations where problems are "wicked" and politics are persistently dominated by powerful interests – which we intend to further explore in future contributions.

2.1. Multilevel Governance (MLG) of Climate Change

Scholarship on multilevel governance (MLG) aims to describe, explain, and evaluate the dispersion of policy-making capacities above, below, and beyond the nation state. A first generation of MLG researchers focused primarily on the vertical diffusion of authority, with the EU offering the most advanced example of states ceding power to supranational institutions (Marks 1993; Scharpf 1994). More recent applications of MLG look beyond European integration, seeking to understand the complex and dynamic relationships between governmental and non-governmental actors within and across territorially bounded spaces (Enderlein, Wälti, and Zürn 2010). This new generation of MLG scholarship acknowledges that policymaking authority may flow "upward, downward and sideways" (Hooghe and Marks 2003, p. 233), challenging a rigid distinction between local, national, international, and transnational politics.[3] Within this broader understanding of MLG, authority is not necessarily explicitly delegated, rather its dispersion may be an emergent consequence of state disaggregation (Slaughter 2004) or private entrepreneurship (Green 2014).

MLG can be usefully applied to global climate governance, which engages a broad variety of actors across sectors and levels, all jostling to upload, download, impose, shape, and evade, or enforce compliance with rules, standards, and norms (Bulkeley and Betsill 2005; Rietig 2014; Jänicke 2017). An MLG lens zooms in on the interactions between levels, illuminating how state and non-state climate action is embedded into wider intergovernmental and/or transnational governance regimes and how these regimes are, in turn, shaped by their constituent actors. On the global level, the UNFCCC regime continues to provide the central, albeit not the only, arena in which these dynamics play out. While the autonomy of the

[3] This conceptualization of MLG is sometimes referred to as Type II to distinguish it from Type I MLG arrangements that resemble conventional federal systems (Hooghe and Marks 2003).

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UNFCCC as an organization is limited, it plays a key role in providing "stable opportunity structures" for state interaction that may result in binding international commitments (Jänicke 2017, p. 111). In the case of the Paris Agreement, these commitments are primarily procedural, laying the groundwork for national policy development rather than setting a narrow regulatory framework. Although states remain "the primary structured field of action" (Cerny 2010, p. 157) and the best resourced and most legitimate actors in the formulation and enforcement of climate policies (Jordan and Huitema 2014), regional governance arrangements can provide an important intermediary function. This is particularly true for the EU, which plays a key role in channeling interaction between member states and the UNFCCC regime and has the authority to create an additional layer of regulation to facilitate the implementation of international commitments. In addition, a growing number of sub-state and non-state actors are carving out a space for themselves in the global MLG system for climate change, often facilitated through or seeking to inspire national or supranational regulation.

A key question in MLG scholarship is whether it can raise ambition and make policymaking more effective. Many concur that task specific and flexible jurisdictions allow for the exploitation of different problem-solving capacities and economies of scale (Scharpf 1997; Hooghe and Marks 2003). Indeed, multilevel experimentation, involving "the simultaneous activation of governmental and non-governmental actors" (Piattoni 2010, p. 159), has been identified as a vital mechanism of responding to the complex problem of climate change (Ostrom 2014). Within MLG structures, a plurality of actors can position themselves as leaders, allowing for vertical and horizontal upscaling – or "multilevel reinforcement" – of best practices (Schreurs and Tibhergien 2007; Jänicke and Wurzel 2018). Progressive policy entrepreneurs can promote their preferred policy solutions on more than one level of governance, engage in broader coalitions, and utilize multiple policy venues (Rietig 2020). Under the right conditions, they may be able to exploit opportunities at one governance level to push for change at another, higher or lower, one.

However, recent contributions have challenged the functionalist optimism that continues to permeate much of the MLG literature, with criticism focusing primarily on questions of democratic legitimacy, transparency, and accountability (Benz 2003; Pierre and Peters 2004; Papadopoulos 2010). There is also a lack of agreement regarding how to measure the purported efficiency gains of MLG (Bache and Flinders 2004). In a rapidly warming world, policy innovation is vital but there is no reason to believe that MLG automatically generates incentives and opportunities for progressive policy entrepreneurship and "multilevel reinforcement." Complex MLG arrangements may obscure accountability and allow special interests to capture the policy making process (Curry 2015). As such, MLG must also contend with "policy obstructers" as factions of society may seek to undermine or contest the upscaling

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or rescaling of policies that threaten their interests or values (Hameiri and Jones 2013). This is particularly salient in the climate change arena, where multi-scalar carbon lock-in has created powerful vested interests (Bernstein and Hoffmann 2019). It is important to note, however, that resistance to climate policies is not always sponsored by powerful private capital. As a growing literature on environmental, climate, and energy justice highlights, the costs and benefits of climate action are not distributed equally, and disenfranchised groups may contest decarbonization policies if they are not socially inclusive (McCauley and Heffron 2018).

2.2. Prospects for Policy Change: The Multiple Streams Framework (MSF)

If positive "multilevel reinforcement" is not guaranteed, it is important to understand which conditions may enable policy entrepreneurs to utilize MLG structures to push for more ambitious climate action. The question of when, where, and how policy entrepreneurs make a difference has been the subject of extensive research in political science, public policy, and cognate disciplines. While the literature on policy entrepreneurship and agenda setting is vast and diverse, many contributions build on John Kingdon's (1984) influential multiple streams framework (MSF) to explain marked policy change. Using a revised version of the garbage can model of organizational decision making (Cohen, March, and Olsen 1972), Kingdon identifies three independent but occasionally converging "streams" that inform policymaking processes: problems, policies and politics. In the *problem* stream, issues arise that are deemed to require policy action because new evidence or acute crises draw attention to their scope and scale. In the *policy* stream, potential solutions to these issues are developed. According to Kingdon (1984, p. 123), these ideas float around in a "policy primeval soup", where they evolve as various actors seek to modify, combine, or reject them. Finally, developments in the *politics* stream – changes in national mood, election outcomes, or pressure group campaigns – determine how receptive policymakers are to proposed solutions. Policy change occurs if and when these three streams overlap, thus creating a "window of opportunity" during which "people pay high attention to a problem, a viable solution exists, and policymakers have the motive and opportunity to select it" (Cairney and Zahariadis 2016, p. 87). It is at this moment, that policy entrepreneurs have an opportunity to push forward their respective ideas, "coupling solutions to problems" and "both problems and solutions to politics" (Kingdon 1984, p. 21). By highlighting opportunity structures as well as the importance of agency, the MSF emphasizes the interactive, strategic, and contingent nature of policymaking and its effect. This is especially pertinent within complex MLG systems that accommodate a diversity of actors, each with their own incentives, values, and interests.

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It has been noted that the MSF was "developed exclusively on the basis of the examination of a single, somewhat idiosyncratic national case", namely health and transportation policies in the US (Béland and Howlett 2016, p. 222). However, subsequent applications to other policy areas and political contexts have demonstrated its enduring usefulness for understanding when, how, why, and by whom policy change is being pursued, including in MLG arrangements such as the EU (Peters 1994; Richardson 2006; Ackrill and Kay 2011; Ackrill, Kay, and Zahariadis 2013). In fact, it has been suggested that, as policymakers operate in an increasingly complex, globalized, ambiguous, and contested environment, "the MSF seems to have become more relevant and suitable than ever before" (Zohlnhöfer, Herweg, and Rüb 2015, p. 412), providing insight into the dynamic processes and relationships that characterize MLG. While the MSF continues to be employed primarily to study national policymaking at particular moments in time, this is changing as scholars' understanding of policy entrepreneurship evolves. In Kingdon's original MSF, policy entrepreneurs are individuals – elected politicians, appointed government officials, interest group leaders, or representatives of research organizations – that possess the power, knowledge, time, and ability to push forward their preferred policy solutions. Importantly, however, these individuals rarely act on their own and collaborative efforts are fundamental to goal achievement (Mintrom 2019). Indeed, recent applications of the MSF have demonstrated that collective entities can also act as policy entrepreneurs, from corporations (He and Ma 2019), non-governmental organizations (Carter and Childs 2018), and global partnerships (Andonova 2017) to supranational bodies such as the European Commission (Copeland and James 2013) or the secretariats of international organizations (Nay 2012). The UNFCCC secretariat and its Executive Secretary, for example have occasionally provided important policy entrepreneurship, despite enjoying only limited independence, resources, and powers (Rietig 2019; Hale 2016). In MLG settings, national governments can also be conceptualized as policy entrepreneurs, pursuing policy change on the regional or global level (Harcourt 2016). For example, "green" EU member states have played a critical role in strategically driving forward European environmental policy development (Liefferink and Andersen 1998).

However, although MLG structures accommodate a large number of potential policy entrepreneurs, the MSF suggests that conditions for them to be successful vary greatly over time. Only when *problem*, *policy*, and *politics* streams converge – ideally on more than one level of intervention – are major directional policy changes likely to occur. For several reasons, the structural conditions for policy entrepreneurs pushing for radically more ambitious climate action at local, national, and/or global levels are uniquely challenging. In the *problem* stream, climate change consistently struggles to compete with other, seemingly more urgent, issues because its full impact is not yet felt today. In the *policy* stream, it is impossible to create

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straightforward solutions due to the "super-wicked" nature of the challenge (Levin et al. 2012). It is increasingly clear that effective interventions will require "deeply intrusive" interventions that may fundamentally change the way our societies are organized (Hurrell 2007, p. 220). This prospect, in turn, is likely to paralyze the *politics* stream as such interventions are bound to encounter resistance from different sections of society. On top of this, political economy dynamics reinforce carbon lock-in at multiple levels, scales, and places simultaneously, creating powerful path dependencies (Bernstein and Hoffmann 2019). Yet, this does not preclude the possibility of transformative policy change. As our case studies on the EU and national climate laws demonstrate, agile policy entrepreneurs have been able to open "windows of opportunity" at several points in time, often utilizing MLG dynamics to put pressure on policymakers. However, the ASEAN experience suggests that this is only possible if the three streams are indeed allowed to "flow", providing non-elite actors with access to political decision-making and allowing them to input on problem framing and potential solutions.

2.3. Introducing the Three Case Studies

Our first two case studies zoom in on the regional level of global climate MLG to explore the actors that facilitate or impede policy change (policy entrepreneurs and policy obstructers) as well as the structural conditions ("critical junctures") that may or may not open up windows of opportunity (Pierson 2000). More specifically, we compare the dynamics within the EU and ASEAN and their interactions with the UNFCCC regime over time, including its two subsidiary treaties, the 1997 Kyoto Protocol and the 2015 Paris Agreement. As will become apparent, EU and ASEAN climate governance arrangements differ significantly. Whereas the EU has developed a sophisticated and relatively intrusive regulatory framework for climate and energy, examples of substantial ASEAN-wide climate governance initiatives are far and few between. There are some obvious limitations to direct comparison of these two regional institutions, with the EU presenting a "case of deep, supranational sovereignty-pooling" whereas ASEAN "is an example of distinctly sovereignty-friendly intergovernmental cooperation" (Larik 2019, p. 447). Normatively grounded in the principle of non-interference, ASEAN integration has not produced strong, independent institutions comparable to EU-level bodies such as the European Commission or the European Parliament. Moreover, as ASEAN member states are primarily developing economies, their obligations under the UNFCCC regime have historically been much more limited than those of the EU and its member states. Yet, beyond these cultural, political, economic, and historic differences, we also identify less well-understood variations in policy processes, arguing that MLG structures in Europe are more dynamic and providing more access points for potential policy entrepreneurs, whereas regional policy development in ASEAN is stymied by domestic *politics* streams that are highly asymmetrical against non-elite actors.

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The EU has long been recognized as a powerful player in global climate governance. Compared to most other supranational bodies, it is uniquely autonomous as member states have delegated increasing executive, judicial, and legislative powers to European institutions (Pollack 2003). However, as Jessop (2016, p. 27) cautions, the EU's ability to show external actorness should not compel us to "blackbox" its internal complexity or the fact that the EU itself "is inserted into wider sets of government, governance and metagovernance relations across different sets of sociospatial relations." As we explore in the case study, the interplay between the UNFCCC, the EU, and its member states is characterized by constant contestation and (re)negotiations between levels. EU climate policy development has been influenced by the international framework but, at the same time, the EU has attempted, with a varying degree of success, to "globalize" its own regulatory approach. Similar dynamics can be observed within the EU, as member states download policies while simultaneously seeking to upload their policy preferences (Börzel and Panke 2019). The rotating Council presidency, for example, provides a platform for individual states and their leaders to put their weight behind particular agendas (Tallberg 2011). However, leaders (and followers) within EU MLG structures may also include the business and investor community, unions, non-governmental organizations (NGOs), epistemic communities, sub-national authorities, public policy networks, and resourceful individuals (Torney 2019a). At times, the dynamic interplay between these different actors appears to have made EU climate governance more ambitious (Schreurs and Tibhergien 2007; Jänicke and Quitzow 2017). Yet, in the absence of structural opportunity windows and determined policy entrepreneurs, MLG policy development has also been characterized by stagnation. Interestingly, as we explore below, the connection between external engagement with the UNFCCC and internal policy development is not linear and the EU's ambition to position itself as a leader on the international level has not always translated into ambitious internal climate policy frameworks.

We contrast the EU experience with a case study of ASEAN, which has not developed any robust and ambitious climate governance arrangements and struggles to speak with a united voice during international climate negotiations. As such, the ASEAN case provides an interesting counterfactual to overly optimistic accounts of MLG, demonstrating that institutional structures for regional (meta-)governance are not necessarily utilized to make climate action more ambitious or coherent. As our case study demonstrates, the lack of substantial policy on the regional level cannot be explained solely with ASEAN's consensus-based and non-interventionist governance model. Rather, the primary obstacles to meaningful regional climate action are located at the domestic level, where effort to broaden problem definition and policy choice must contend with limited state capacity and/or politically dominant factions of capital that have become deeply enmeshed within state apparatuses. Even though the

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transnationalization of politically protected domestic capital has made countries such as Singapore more responsive to global reporting and transparency initiatives, engagement with these metagovernance arrangements has been selective and problem frames remain closely linked to elite agendas. As such, the ASEAN experience may point to some important limitations of the original MSF framework, which has been primarily applied to policy processes in Western developed countries (Zohlnhöfer, Herweg, and Rüb 2015), where *politics* streams are more dynamic and subject to competing pressures. In contrast, in countries such as Singapore or Indonesia, the *politics* stream is highly skewed towards powerful elites, also limiting the range of problem frames and policy alternatives that can be put forward and suggesting that the three streams may be less independent as initially assumed by Kingdon.

We supplement the two regional-level case studies with a case study of national climate framework laws. As Jänicke (2017, p. 113) reminds us, states "remain the key players in the MLG system" and, ultimately, climate governance is unlikely to be successful without strong national-level transparency and accountability structures. We argue that climate laws are "an idea whose time has come" (Kingdon 1984, p. 1), demonstrating how an unusual coalition of policy entrepreneurs was able to get a climate law adopted in the UK and how this concept was transferred, first horizontally to other states, and then vertically onto the EU level. The case study speaks to the importance of coalition building for successful entrepreneurship (Mintrom 2019) as well as the ability of civil society organizations to provide collective cognitive leadership (Carter and Childs 2018). That said, entrepreneurs engaged in policy transfer encountered a number of structural challenges and the growing enthusiasm for climate laws has not yet translated into a "race to the top," in particular with a view to guaranteeing science-based policy input and accountability through independent climate advisory bodies (ICABs). Ideally, climate laws emerge from a broad democratic consensus on the need to pursue long-term, structural change. They also require a certain level of state capacity to be effective. Thus, while comprehensive climate laws have emerged around the world, in particular in the wake of the Paris Agreement, a lot of the activity remains centered in Europe, where legalization is a long-standing climate governance tool. In the ASEAN context, where climate advocates have only limited influence on developments in the *problem*, *policy*, and *politics* streams, robust climate laws and formal ICABs are unlikely to be established in the near future. However, the emergence of an informal grassroots monitoring and advocacy regime speaks to the importance of civil society organizations and domestic pro-climate constituencies in driving climate ambition and accountability.

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3. EU Climate Governance and Engagement with the UNFCCC: Multilevel Reinforcement or Multilevel Stagnation?

Key Insights

- The EU is a distinct, if not always coherent, foreign policy actor and able to implement uniquely intrusive laws and regulations compared to other supranational institutions. Its long-standing ambition to be an international climate leader has been closely linked to internal objectives, above all building support for the wider European project. International commitments under the UNFCCC have directly influenced EU-level policymaking, in particular during the early to mid-2000s. At the same time, the EU has sought, with mixed success, to "globalize" its own policy preferences, which are themselves the product of multilevel interactions between EU-level institutions, member states, as well as sub- and non-state constituencies.
- This has complex implications for the ability of policy entrepreneurs to push for path-departing change. The EU's dynamic MLG environment offers many opportunities for interaction and learning as well as multiple pressure points that policy entrepreneurs can use to couple the MSF's three streams (*problems*, *politics,* and *policy*). For instance, the introduction of the EU emissions trading scheme was partly inspired by the need to demonstrate the viability of the Kyoto Protocol and also a response to emerging national-level experimentation in this area. Similarly, the Commission's recent proposal for a European Climate Law has been motivated by the need to deliver on the Paris Agreement as well as building on existing legislation in some member states.
- However, positive multilevel reinforcement does not always occur. EU MLG arrangements also provide various entry points for veto-players interested in obstructing ambitious climate action. EU climate governance has seen periods of multilevel stagnation, when *problem*, *policy,* and *politics* streams do not align. For example, the failure to agree on a Kyoto-successor at the 2009 Copenhagen conference provided further ammunition for countries interested in stifling EU climate ambition in the wake of the economic crisis and fossil fuel interests were able to exploit the growing divisions between as well as within member states and European institutions.

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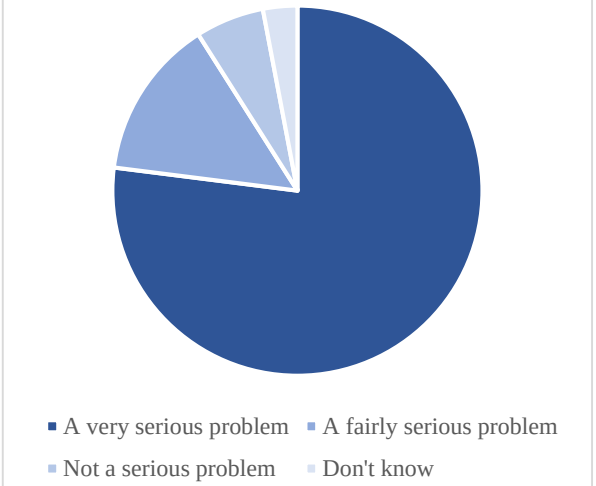
- The past two years have seen much dynamism in the *problem*, *politics*, and *policy* streams. Perhaps most consequentially domestic pro-climate constituencies have become more vocal. Supporting these progressive voices, while taking serious concerns about the distributional effects of climate action, will be key to effective and sustainable policymaking, especially in light of the need for a green recovery from COVID-19.

3.1. Introduction: Climate Governance in the EU

Climate and environmental sustainability are a priority concern of the European Union (EU) and often considered among its most successful policy areas (Deters 2018). The EU's aspiration to be a "climate leader" has shaped its engagement with the UNFCCC regime and propelled the development of "a vast patchwork" of internal policies, laws, and regulatory instruments, including the world's first and largest Emissions Trading System, the EU ETS (Lee 2014, p. 133). The development of the EU's internal and external climate policies has attracted much scholarly attention. Specifically, researchers have attempted to explain why and how the EU has positioned itself as a climate leader and whether it has done so successfully. Many would concur with Lenschow and Sprungk (2010) that the well-established myth of a "Green Europe" has been an important instrument to generate support for the wider European project. Indeed, EU action on climate change and other environmental issues has been consistently popular and European institutions, in particular the Commission, have used joint climate action strategically as a means to reinforce their own legitimacy, advance the development of a joint foreign policy, and accelerate European identity building (Hovi, Skodvin, and Andresen 2003; Schreurs and Tiberghien 2007; Oberthür and Roche Kelly 2008). These ambitions still reverberate in the proposed European Green Deal, described by Commission president Ursula von der Leyen as "Europe's 'man on the moon' moment" (von der Leyen 2019).

Figure 1: How serious a problem do you think climate change is at the moment in the EU (average EU-27)?
Source: Eurobarometer 2019



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The EU's actual performance in this policy domain has received mixed reviews. Three key objectives continue to inform European climate action: reducing greenhouse gas (GHG) emissions, promoting renewable energy sources, and improving energy efficiency. The EU is largely on track to meet its 2020 targets in these areas, with the notable exception of the energy efficiency target (Sánchez Nicolás 2020a). However, it is not on track to meet all the goals set out in its 2030 climate and energy framework, which are in themselves not considered ambitious enough to pave the way for a climate-neutral Europe in 2050 (European Environment Agency 2019). On a general level, environmental protection within the EU has always been uncomfortably entangled with internal market and economic growth imperatives (Sadeleer 2014). The post-2008 recession deepened divisions between member states on whether climate policies are necessary or detrimental for economic growth (Skovgaard 2014), and these divisions are still visible with regards to plans for a "green recovery" from COVID-19 (Khalid 2020). Profound divisions are also visible elsewhere as the "permissive consensus" that initially allowed European integration to advance largely as a technocratic project has been replaced by a "constraining dissensus" (Hooghe and Marks 2008). The launch of the European Green Deal signifies the continued importance of climate and environmental policy for the EU's *raison d'être*. However, in the face of other urgent internal and external challenges – with Brexit and the COVID-19 pandemic just two of them – it is an open question whether the EU can deliver on its green promises.

The following analysis employs an MLG-plus-MSF lens to explore how the current EU climate governance landscape emerged, with a view to understanding both external and internal drivers of European ambition in this space as well as the role of policy entrepreneurship. It suggests that European climate policy must be understood as the product of complex multilevel dynamics. The emergence of the UNFCCC regime accelerated EU climate policy development and influenced EU policy design, perhaps most evidently in the case of the EU ETS. In turn, the EU has sought to "globalize" its own institutional preferences for a binding, target-led approach to global climate action, bolstered with robust review mechanisms (Parker, Karlsson, and Hjerpe 2017). Importantly, the EU is also a major donor to the UNFCCC secretariat through both assessed and voluntary contributions (Interview 1). Individual EU member states have also helped shape UNFCCC-level outcomes, as exemplified by French entrepreneurial leadership during COP-21. Similar MLG dynamics also play out within the EU, with national climate and energy policies strongly influenced by EU regulation. At the same time, individual member states have often been successful in "uploading" their policy preferences to the EU level. Non- and sub-state actors, such as businesses, investors, industry associations, labor unions, non-governmental organizations (NGOs), cities, or regions, also play increasingly important roles in this MLG arrangement, sometimes acting as

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successful policy entrepreneurs. For example, as we explore in Section 5, the concept of a climate law – a key component of the Commission's new Green Deal initiative – first emerged on the national level, with NGOs playing a key role in pushing it forward on the European level.

There is evidence that multi-level reinforcement can increase the ambition and effectiveness of EU policymaking (Schreurs and Tibhergien 2007). As Jänicke and Wurzel (2018) show, MLG dynamics have allowed various policy entrepreneurs to step up at different points in time, from early national climate leaders (such as Denmark, Germany, the Netherlands, Sweden, or the UK) to the European Commission to recent climate experiments by provinces, regions, cities, and private business, the latter often facilitated through transnational networks or UNFCCC-led platforms (Hermwille 2018). Yet, dispersion of authority also poses challenges to the EU's "actorness" and legitimacy, making its internal decision-making process as well as its external system of representation uniquely complex and cumbersome (Jordan, Huitema, and van Asselt 2010). Thus, the EU is simultaneously "leaderless" and "leaderful" (Müller and Van Esch 2019). When policy windows open – i.e. when Kingdon's *problem*, *politics*, and *policy* streams converge – a variety of individual actors, groups, and institutions can push forward policy proposals, enabling dynamic interactions, rapid diffusion of ideas, and possibly a "race to the top" in terms of ambition.

However, MLG arrangements in the EU also leave ample space for veto players and "policy obstructers," engaged in preventing ambitious environmental policies from passing or obstructing their implementation on the national level (Laffan and O'Mahony 2008). This includes "laggard" member states but also organized interests, which are able to exploit the unique political opportunity structures presented by European MLG processes, characterized by various entry points and multiple feedback channels (Coen and Richardson 2009). Indeed, the fossil fuel industry has increased spending on lobbying activities within EU institutions over the past decade (Laville 2019) and the EU continues to pay billions in fossil fuel subsidies every year (Hayer 2017), undermining much needed "strategies that disrupt carbon lock-in at multiple levels and scale" (Bernstein and Hoffman 2019, p. 919). Campaigners have raised concerns that the COVID-19 crisis might further entrench fossil fuel interests in Europe, with the industry promoting an economic recovery agenda that depends on "dirty energy" options (Corporate Europe Observatory 2020). As a result of corporate capture, national governments may also seek to drive down EU-level standards, as illustrated by Germany's continued efforts to soften measures aimed at regulating emissions from the car industry (Gearino 2020). In addition, while regional climate action enjoys broad public support in general, the EU and its member states will likely have to contend with growing conflict over *how* climate targets should be achieved and with what distributive consequences.

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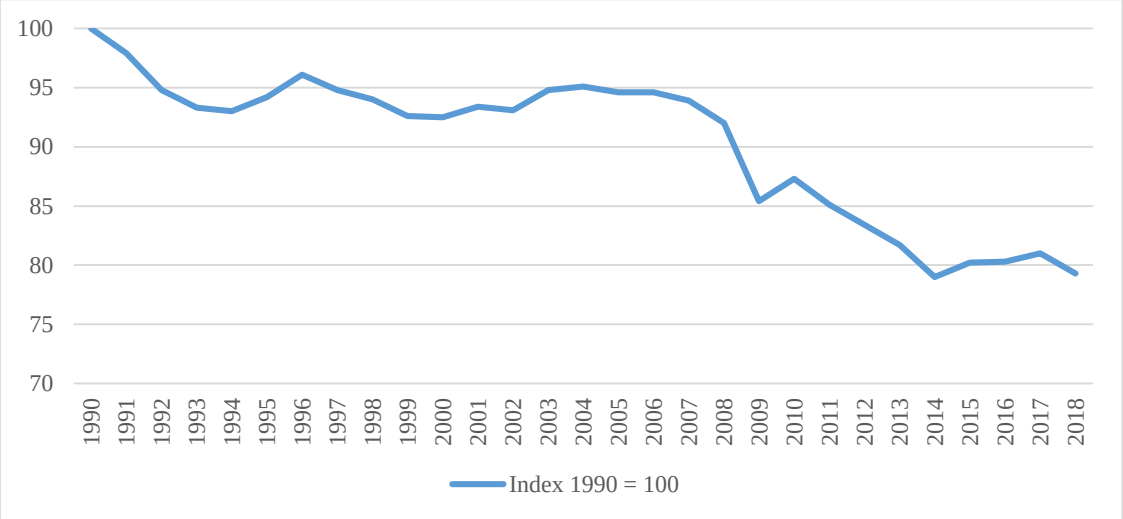
Figure 2: GHG Emission Trends EU-27 (incl. international aviation, excl. LULUCF)[4]

Source: Eurostat (2020)



In 2018, GHG emissions in the EU-27 (excluding the UK) were down by 21% compared with 1990 levels. The EU is thus on track to surpass its 20% emissions reduction target by 2020 but accelerated action is needed to meet the current 40% reduction target by 2030 (which is itself considered insufficient and likely to be revised). In 2018, Germany was responsible for the largest share of EU-27 total emissions (23%), followed by France (12%), and Italy (11%). Eastern European member states saw the biggest decreases of emissions levels compared with 1990, with the biggest increases reported for Cyprus, Spain, Portugal, and Ireland.

3.2. From Kyoto to Paris: UNFCCC-EU Interplay and EU-Level Policy Development

International ambition vs domestic implementation: EU climate change regime in its infancy

The EU has sought to position itself as an ambitious actor from the very start of the international climate change regime. As early as 1990, European leaders had agreed on a joint target to stabilize GHG emissions at 1990 levels by the turn of the century. In the negotiations leading up to the adoption of the UNFCCC, the European Community (later EU) advocated for the inclusion of legally binding mitigation commitments for developed countries in the Convention. While US opposition thwarted these efforts, the EU was successful in pushing for binding GHG emissions reduction targets at the 1997 Kyoto negotiations, where it emerged as “the most proactive and ambitious actor among industrialized countries” (Van

[4] Land-use, land-use charge and forestry

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Schaik and Schunz 2012, p. 179). Although the final agreement did not reflect EU ambition in terms of the global GHG reduction target, Kyoto has generally been viewed as a diplomatic success for the EU, reflecting its preference for a top-down regulatory approach (Gupta 2014). The EU agreed to take on the highest GHG reduction target (8% by 2012 compared to 1990 levels) of all developed states and secured a right to redistribute this aggregate target internally by forming a so-called "bubble".

Bäckstrand and Elgström (2013, p. 1371) have suggested that the EU's "insistence on legally binding targets, as expressed by the Kyoto Protocol, and on strong compliance mechanisms may be seen as a reflection of its own internal experiences." Indeed, much of the Kyoto Protocol's design is evocative of the EU's regulatory approach to addressing environmental problems through numerical targets, timetables, and institutionalized compliance assessments (Eckes 2013). However, at the time of the Kyoto negotiations, the EU had not yet established an ambitious set of internal measures and common policies to address climate change, beyond the establishment of a mechanism to monitor GHG emissions and an internal burden sharing agreement, which had been the result of arduous negotiations (Haug and Jordan 2010). Although the EU's GHG emissions fell in the early 1990s, this was mainly a result of structural changes in the economy of key member states, namely German reunification and the shift from coal to gas in the UK (Oberthür and Roche Kelly 2008). Thus, by the end of the century, the EU had positioned itself as leading actor on the international level but there was little development internally in the *problem*, *policy*, and *politics* streams and joint policies remained underdeveloped, resulting in a considerable "credibility gap between international promises and domestic implementation" (ibid, p. 39).

Leading by example: growing internal and external climate policy ambitions

In the early 2000s, the EU accelerated its climate policy development. The US decision to withdraw from the Kyoto Protocol in early 2001, somewhat counterintuitively, provided additional impetus for the rapid development of joint EU climate action and foreign policy. It produced an opportunity for the EU to validate its credentials as an international climate leader and its capacity to act as a coherent foreign policy actor and normative power. Rescuing Kyoto "became not just an environmental goal but also a key aim of an emergent EU foreign policy by heightening European identification with the Kyoto Protocol" (Torney 2015, p. 49). In November 2001, at COP-7 in Marrakech, the EU played an instrumental role in negotiating the Kyoto rulebook and, in a "major diplomatic victory" (Oberthür 2011, p. 669), it eventually succeeded in persuading Russia to ratify the Protocol, thus enabling its entry into force. However, to secure the continued cooperation of Russia and other industrialized countries

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such as Australia, Canada, and Japan, the EU had to make compromises with regard to compliance provisions and the environmental integrity of the Protocol.[5]

While paving the way for the entry into force of the Kyoto Protocol was key to demonstrating European external "actorness" (Bretherton and Vogler 2006), the EU saw itself confronted with the need to establish greater internal unity and develop policies to deliver on its Kyoto commitments (Jordan and Rayner 2010). In 2000, it launched the European Climate Change Programme (ECCP), a broad multi-stakeholder dialogue involving the Commission, member states, industry, and environmental groups that sought to develop EU-level policies and measures to cut GHG emissions. Many of the proposals put forward through the ECCP were eventually developed into concrete policies and initiatives, most notably the EU ETS, which was launched in 2005 and quickly became a cornerstone of EU climate policy. It is also one of the clearest examples of a "downloaded" policy instrument that "would likely not have come into existence without the Kyoto Protocol" (Ellerman and Buchner 2007, p. 67). In fact, the EU had originally been strongly opposed to emissions trading and the other flexibility measures that had been included in the Kyoto Protocol upon insistence by the US. Policy entrepreneurship by the European Commission was key to reversing the EU's position on emissions trading (Skjærseth and Wettestad 2010). From an MSF perspective, these efforts were facilitated by (1) changes in the *problem* stream, as the EU faced the urgent need to demonstrate the workability of the Kyoto Protocol in light of US withdrawal, (2) new developments in the *policy* stream, with some member states – namely the UK and Denmark – already experimenting with pilot schemes for domestic emissions trading, and (3) shifts in the *politics* stream, notably a change of leadership in the Commission's Directorate General (DG) Environment as well as growing industry support for emissions trading. DG Environment, now led by Jos Delbeke, realized that emissions trading was politically more feasible than traditional command-and-control approaches, such as a carbon and energy tax.[6] The Commission was also concerned about the possible emergence of a fragmented and disjointed European emissions trading landscape in the absence of EU-level action (Grubb et al. 2012).

[5] At COP-6/COP-7, the EU did not succeed in pushing for an absolute cap on the usage of market mechanisms, a provision that would have increased pressure on Annex-I (developed) countries to implement effective and long-term decarbonization policies on the national level (Ott 2001). Regarding compliance, the EU advocated for a strong, binding, and relatively intrusive system with independent case-by-case reviews, whereas Japan, Russia and Australia preferred a soft, non-binding regime. Efforts to make compliance procedures legally binding through a Protocol amendment were ultimately thwarted, however, parties agreed to establish a compliance body with two branches, a facilitative and an enforcement branch, with the latter able to sanction non-compliance, including through the suspension of trading under the market mechanisms (Werksman 2005).

[6] Unlike a tax, emissions trading did not require unanimous endorsement in the Environmental Council.

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Thus, by the mid-2000s, it was finally possible to speak of a coordinated EU approach to climate policy. However, it should be noted that, during its initial two phases, the EU ETS functioned in a very decentralized manner, granting significant autonomy to member states in terms of setting an overall cap for emissions. In addition, most allowances were freely allocated, rather than auctioned, and industry could use cheaper external credits from the Kyoto Protocol's flexibility mechanisms to comply (Lee 2014). These design features significantly weakened the environmental integrity of the ETS. Nevertheless, the combination of EU measures taken during the first half of the 2000s likely had a substantial decreasing effect on GHG emissions in the second half of the decade (Dupont and Oberthür 2015). They also reflected the gradual "transformation of the climate issue from a sectoral policy concern into a high-politics, core-identity issue for the EU" (Torney 2015, p. 49). Remarkably, as Jordan and Rayner (2010) note, these developments took place against the challenge of integrating ten new member states into the Union, most of which did not consider climate change an immediate priority.

However, other internal and external developments in the mid-2000s helped to push climate change further up the EU agenda. In the *problem* stream, the looming start of the Kyoto Protocol's first commitment period highlighted the need for the EU to deliver on its climate leadership pledge. Scientific, public, and political concern over climate change reached new levels, following the release of the 2006 Stern Review, the IPCC's Fourth Assessment Report and other high-profile contributions, such as Al Gore's book and documentary film *An Inconvenient Truth* (Lefevere 2009). In addition, soaring oil and gas prices put into question the long-term security of the EU's energy supplies. In the *policy* stream, this provided a strategic opportunity for the Commission to push forward an integrated energy and climate policy (Skjærseth 2017). While EU-level energy policies had historically been resisted by key member states, most notably the UK, changes in the *politics* stream now paved the way for common targets. Political leaders such as Tony Blair or Angela Merkel were keen to push climate further up the European and international agenda (Barkin 2007). A critical juncture in this regard was the informal summit of EU leaders at Hampton Court in October 2005, which sent a clear political signal for more ambitious action (Eikeland 2012). The private sector, too, increasingly seized on climate and environmental sustainability as a business opportunity. Thus, the mid-2000s saw a conversion of the *problem*, *politics*, and *policy* streams on multiple governance level. With member states signaling their willingness to accept stronger EU-level governance, the Commission was able to provide policy entrepreneurship through the strategic emphasis of issue linkages between climate and energy (Eikeland 2012; Skjærseth 2017).

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In 2008, the Commission introduced the first climate and energy package, a set of legal acts which implemented three key targets for 2020 that had been agreed by the European Council in the previous year: (1) cutting GHG emissions by 20% from 1990 levels; (2) increasing the share of renewable energy sources to 20%; and (3) improving energy efficiency by 20%. The emissions reduction target was to be achieved primarily through the EU ETS, which was revised to allow for more stringent, centralized cap-setting. A new effort sharing agreement covered emissions from non-trading sectors, such as transport, buildings, agriculture, and waste. In light of growing concerns about economic growth, the Commission was eager to present the 2020 package as a means to increase competitiveness, highlighting that "[t]here is a real potential to make climate-friendly policies a major driver for growth and jobs in Europe" (European Commission 2008a). Internally, the package was significant because it marked the start of an integrated EU-level approach, "mainstreaming" climate change into other policy areas, notably energy, which had traditionally been considered a matter of national sovereignty (Dupont 2016; Lefevere 2009). Externally, the package was explicitly linked to the upcoming negotiations in Copenhagen on a Kyoto successor treaty, with the European Council indicating that the EU would increase its emissions reduction target from 20% to 30% "provided that other developed countries would commit themselves to comparable emission reductions and economically more advanced developing countries contribute adequately according to their responsibilities and respective capabilities" (European Commission 2008b). Although agreeing on the final 2020 package involved difficult and prolonged internal negotiations, ultimately all relevant actors seemed to agree that "[t]he EU climate package was an opportunity for the EU to demonstrate its ideological power and to exert both instrumental and intellectual leadership on other nations before the Copenhagen climate negotiations" (Uusi-Rauva 2010, p. 75).

Thus, towards the end of the 2000s, the EU saw itself as both a progressive leader in international climate negotiations and a laboratory for implementation. Policy entrepreneurs were able to seize on developments at multiple levels of governance, including the EU's political investment in Kyoto, leadership changes in the Commission and key member states, and growing civil society and private sector concern. Although the financial and economic crisis dampened the appetite for more stringent mitigation commitments in some member states, the EU remained conscious of the need to provide leadership in international climate negotiations (Skovgaard 2014). In fact, as Oberthür (2013, p. 78) argues, initially the crisis might have "further strengthened the interest of the EU in achieving an effective international agreement" that would help "levelling the international playing field and softening any competitive disadvantage by internationalizing the EU level of climate protection." Thus, the EU looked towards the 2009 Copenhagen conference in the hope that it would deliver a

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"single, legally binding international treaty" that would "incorporate and build on the essential elements of the Kyoto Protocol, such as emission reductions by industrialized countries, market-based mechanisms, accounting rules for changes in emissions due to land use, land use change and forestry, and a strong compliance regime" (European Commission 2009).

The Copenhagen failure: catalyst for a changing EU leadership strategy

The Copenhagen summit has been described as "a nadir for EU climate leadership and for multilateral climate governance in general" (Walker and Biedenkopf 2018, p. 36). Although the EU had worked hard in the run-up to Copenhagen to push for a new binding treaty, the conference only delivered a political agreement – the Copenhagen Accord – that was not based on the official negotiation text and would merely be noted, not adopted by the COP plenary (Falkner, Stephan, and Vogler 2010). The Accord had been hammered out behind closed doors by the US, China, and the other emerging economies, with EU negotiators not even present. It signified a structural shift towards a bottom-up pledge and review regime and, as such, it reflected few elements of the EU's negotiating position, but retaining the need to limit global warming to 2 °C (Parker, Karlsson, and Hjerpe 2017). In hindsight, Copenhagen represented an important turning point, planting the seeds for what would ultimately become the 2015 Paris Agreement (Bodansky 2016). More immediately, however, Copenhagen was greeted with disappointment and a great deal of embarrassment on the part of the EU. While a directional, example-setting strategy had traditionally been key to establish the EU's claim to global climate leadership, at Copenhagen, it left the EU isolated and marginalized (Van Schaik and Schunz 2012; Bäckstrand and Elgström 2013). Its conditional offer to increase its own 2020 emission reduction target from 20% to 30% if other countries committed to comparable efforts had not convinced the US and the emerging economies of the need for binding targets.

Not only had the EU failed to engage in successful coalition building, it had also struggled to keep a united front at Copenhagen. After the conference, the designated EU climate commissioner Connie Hedegaard who had led much of the COP-15 negotiations, noted that in the "last hours in Copenhagen – China, India, the US, Russia, Japan – each spoke with one voice while Europe spoke with many different voices" (qtd. in Chaffin 2010). Hedegaard was also forced to defend the Danish presidency's handling of the negotiation process, which had suffered from low levels of inclusiveness and transparency (Monheim 2015). Beyond strategic, political, and logistical miscalculations, the chaotic COP-15 proceedings reflected a broader change of global power realities. The rise of the BASIC countries (Brazil, China, India, South Africa) had led to the fragmentation of larger coalitions such as the G77/China, indicating a shift towards a more complex, multipolar climate governance landscape (Christoff 2010). At

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the same time, the EU's significance in terms of its relative contributions to global GHG emissions, gross domestic product (GDP), and population growth was on a steady downward trajectory (Walker and Biedenkopf 2018). While the EU could still claim to be the most ambitious of the industrialized countries in terms of envisaged emissions reductions, it was the US and China – the world's largest aggregate emitters – that emerged as the most powerful players at Copenhagen. Beyond these shifts on the international level, the Copenhagen summit also saw concerted efforts by corporate lobbyist groups (including major European businesses) to push for flexible, market-based based mechanisms rather than stricter binding emissions targets, advancing a narrative that "business is part of the solution" and that this solution must prioritize "economic growth and open trade" (Corporate Europe Observatory 2009).

While Copenhagen represented a low point in European climate diplomacy, it did not mark the end of the EU's leadership ambitions. In his 2012 State of the Union Address, Commission President José Manuel Barroso declared that "[t]he world needs an EU that ... leads the fight against climate change" (European Commission 2012). Two months later, the EU managed to reclaim a leadership role at COP-17 in Durban, where it played an important part in the adoption of the Durban Platform for Enhanced Action, a set of decisions that launched new negotiations under the Convention for a treaty covering the post-2020 period (what would later become the Paris Agreement). By making negotiations of a legally binding universal agreement a precondition for entering into a second commitment period of the Kyoto Protocol, the EU secured a provision that the outcome of these negotiations would be "a protocol, another legal instrument or an agreed outcome with legal force" (UNFCCC 2012, Decision 1/CP.17, para 2). It also embraced a new strategy of coalition- and bridge-building, forming a progressive alliance with the Alliance of Small Island States (AOSIS) and members of the Least Developed Countries (LDC) group (Bäckstrand and Elgström 2013). This strategic self-transformation would later be pivotal to the EU's role in shaping the outcome the 2015 Paris negotiations (Oberthür 2016). At the same time, the EU also shifted towards a more pragmatic and flexible position, accepting that the new agreement was unlikely to incorporate a Kyoto-style top-down process of target-setting and agreeing to "sign on to a hybrid set up with bottom-up reduction pledges combined with a top-down review of performance" (Parker, Karlsson, and Hjerpe 2017, p. 249).

Climate policy during the economic crisis: little appetite for ambitious action

While the EU's international ambitions recovered relatively quickly post-Copenhagen, the same cannot be said for its internal ambitions. The 2020 package continued to provide the basis for EU climate action but, given the Copenhagen outcome, the GHG reduction target

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was not raised from 20% to 30%. When the Commission suggested to unilaterally scale up ambition, even the more climate progressive member states showed little appetite to do so (Fischer and Geden 2015). The EU now felt the full fallout of the financial and economic crisis, which plunged Europe into the deepest recession since the Second World War, as well as the sovereign debt crisis, which created deep divisions between "creditor" and "debtor" member states (Lane 2012). Although the EU began, for the first time, to explore in earnest the implications of a long-term climate target, namely to reduce GHG emissions by 80-95% by 2050, the resulting low carbon roadmap for 2050, presented by the Commission in 2011, never received political endorsement from the Council. Poland, which had emerged as a key veto player to more ambitious EU climate policy, blocked the adoption of the roadmap, unwilling to agree to any longer-term milestones (Fischer and Geden 2015). A new Energy Efficiency Directive, adopted in 2012, was watered down in the legislation process, providing member states with a number of exclusion and exemptions and high levels of discretion in implementing the directive (Zygierewicz 2016). In 2013, planned EU regulations on reducing emissions from passenger cars were weakened after German chancellor Angela Merkel personally intervened in support of the car industry (Carrington 2013) and the credibility of EU regulatory efforts in the area was reduced even further in the aftermath of the 2015 "Dieselgate" scandal (Becker and Traufetter 2016).

Thus, in the years immediately following Copenhagen, the EU's internal climate policy development largely stalled. In the *problem* stream, concerns over unemployment, economic competitiveness, and fiscal stability crowded out climate-related concerns. In the *politics* stream, both the Council and the Commission were deeply divided. Public demand for ambitious climate action was waning and growing EU skepticism manifested itself in the rise of nationalist-populist movements (Fitch-Roy and Fairbrass 2018). The 2014 European parliament elections produced a "big bang" of populist, anti-EU parties whose agendas often reflected hostility towards climate action (Martín-Cubas et al. 2019). These developments made it more difficult for policy entrepreneurs with sufficient capacity to emerge and push for innovative and ambitious EU climate action, while making it easier for policy obstructers to advocate for less progressive policies (*policy* stream). Moreover, in the absence of a new international climate treaty, there were little external stimuli to significantly ramp up EU climate targets. Indeed, "just as international developments were used as an argument for more ambitious commitments by progressive northern and western member states in the 2007 debate [on the 2020 climate and energy package], in the post-Copenhagen period, the changed circumstances were the most frequently cited argument for less ambitious targets" (Fischer and Geden 2015, pp. 4-5). Thus, rather than multilevel reinforcement, EU climate governance experienced a period of multilevel stagnation.

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Nevertheless, in October 2014, the European Council managed to agree on a second climate and energy package with three headline targets for 2030: reducing GHG emissions by "at least" 40% from 1990 levels, increasing the share of renewable energy to 27% (binding only at EU level), and improving energy efficiency by 27% (indicative target). In addition, the Council endorsed an aspirational, non-binding target to reach at least 10% interconnection of electricity grids by 2030. The package, specifically the 40% emissions reduction targets, also formed the basis of the EU's Intended Nationally Determined Contribution (INDC) to the upcoming Paris climate summit. A review clause explicitly connected the package to the COP-21 negotiations, stating that the goals should be reconsidered in light of the conference outcome. However, given the Copenhagen experience, the Commission saw "no merit in proposing a higher 'conditional target' ahead of the international negotiations" (European Commission 2014).

The 2030 package was the result of months of tense negotiations, which exposed significant divisions within the Council, principally (though not exclusively) between the "older" Western and Northern European member states and the "newer" Central and Eastern European (CEE) member states, with Poland again leading opposition against more ambitious long-term climate policies. Poland's laggard positioning can be largely explained by its carbon-intensive economy, which remains heavily reliant on coal, as well as with negative implementation experiences under the previous climate package (Jankwoska 2017; Skjærseth 2014). Yet, Poland was not the only country dragging its feet on more ambitious targets. Bürgin (2014, p. 700) notes that a "lapse in leadership" from the traditionally climate progressive member states encouraged laggards to be more assertive. Beyond the Council, divisions were also visible in the Commission. Much of the entrepreneurial spirit that had enabled the development of the 2020 package had since seeped away, and progressive voices within the Commission found it more difficult to develop a normative justification for more ambitious and stringent targets after Copenhagen. Divisions between (and within) DG Energy and DG Climate Action could be exploited by less progressive factions of the Commission and also made those factions more accessible to business lobbying (Bürgin 2014; Fuchs and Feldhoff 2016).

Consequently, the 2030 package received very mixed reviews. While the EU emphasized that the package simultaneously supported climate action, energy security, and economic competitiveness, environmental NGOs, think tanks, and climate campaigners criticized the targets as unambitious and not going far beyond what would have been achieved under existing policies (Evans 2015). One of the most controversial changes from the 2020 package was the lack of nationally binding renewable energy targets. According to Carey (2015, p. 7), this reversal was "partly a result of the perception that Brussels had been too intrusive in the case of the 2020 package," with member states wanting more control over their national

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energy strategies and energy mixes. Thus, while the EU went into the Paris negotiations with high ambitions for a robust new framework for international climate action, its internal policies reflected political "achievability" rather than scientific urgency.

EU climate action under the Paris Agreement: ambition slow to pick up

The 2015 Paris Agreement was in large part enabled by a rapprochement between the two largest GHG emitters, specifically a US-China bilateral agreement on joint climate action, concluded in November 2014, that set the scene for the COP-21 talks (The White House 2014). However, the EU also played a key role in the negotiations and managed to achieve many of its policy objectives in Paris, securing an international treaty with legally binding elements, mitigation commitments for all countries, a regular review cycle, and robust transparency rules (Oberthür and Groen 2018). These successes were to a large extent the result of careful EU coalition building, at the heart of which was the so-called "high-ambition coalition" (HAC), a cross-regional alliance that would eventually comprise more a hundred countries, including key players such as the US and Brazil (Parker, Karlsson, and Hjerpe 2017). The EU was quick to advertise its reclaimed leadership role after the successful conclusion of COP-21, with climate commissioner Miguel Arias Cañete calling the HAC a European "masterplan" that helped to culminate "years of efforts" to secure an ambitious, universal treaty (Cañete 2015). The French COP presidency was also widely credited for creating a favorable environment for reaching an agreement, in particular through the skillful orchestration by the French Foreign Minister Laurent Fabius and the cognitive leadership of France's climate ambassador Laurence Tubiana (Bodansky 2016). Tubiana, in turn, was strongly influenced by national experiences with legal "backcasting", i.e. climate laws that define a desirable 2050 endpoint and then chart a pathway towards this goal, subject to regular reviews (Interview 2, see also Section 5). The UNFCCC secretariat, especially Executive Secretary Christiana Figueres, worked closely with the French presidency to ensure high levels of transparency throughout the proceedings, drawing on lessons learned from pervious COPs, in particular the 2009 Copenhagen conference (Rietig 2019).

Although the EU's instrumental role in brokering the Paris Agreement was widely acknowledged, climate activists were quick to point out that its internal commitments as enshrined in its NDC and the 2030 climate and energy package were at odds with the Paris Agreement's 1.5 °C target and lacked a long-term whole-economy perspective. Yet, the conclusion of a new international treaty did not immediately open a policy window for more decisive EU climate action. While the Paris Agreement had clearly established global warming as one of the most urgent challenges facing the planet, climate change had to compete with an increasing number of other issues in the *problem* stream. In addition to continued worries

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over economic growth, the refugee and migrant crisis, Brexit, and heightened security concerns over terrorism and a resurgent Russia were crowding out climate-related concerns. This was closely linked to changes in the *politics* stream, where the migrant issue provided ammunition for right-wing populist parties. Public concern for climate change also experienced further (albeit slight) decline (Eurobarometer 2017). In addition, political conditions on the international level had changed dramatically after the election of US president Donald Trump who announced US withdrawal from the Paris Agreement a few months into his presidency. There was, however, movement in the *policy* stream, at least in some parts of the EU and on some levels of governance. For example, in the wake of the Paris Agreement, a growing number of states, regions, and cities adopted climate laws that enshrined long-term emissions reduction targets as well as review systems and independent advisory bodies to ensure effective compliance (as elaborated in Section 5). Private actors, such as businesses, investors, and NGOs, also developed new solutions to speed up decarbonization in line with the Paris Agreement's goal.

On the EU level, however, action focused primarily on updating regulation in order to comply with the existing 2030 targets rather than on significantly ratcheting up ambition. The EU ETS received an overhaul, which involved the introduction of a new mechanism to modulate supply.[7] A new Effort Sharing Regulation was adopted, as well as new legislation to incorporate emissions and removals from Land Use, Land Use Change, and Forestry (LULUCF) into the 2030 framework. In addition, the Commission released a massive legislative package, the Clean Energy Package, most of which was adopted by the end of 2018. Key components of the package included the revision of the renewable energy and energy efficiency directives, which entailed an upscaling of the corresponding 2030 targets to 32% and 32,5%, respectively, with the possibility of upward revisions in 2023. Climate commissioner Cañete emphasized that the revised renewable energy and energy efficiency targets would also change the modelling for the emissions reduction target, "de facto" upping the EU's NDC pledge to 45% (Cañete 2018). However, this did not convince climate activists, who were concerned that the revised targets still did "not reflect the urgency of the climate crisis" (CAN Europe 2018).

A less publicly discussed but vital component of the Clean Energy Package was the introduction of a new governance system to underpin the delivery of the 2030 targets, based on integrated National Energy and Climate Plans (NECPs). The primary purpose of the so-

[7] The Market Stability Reserve (MSR), which began operating in January 2019, was introduced to counter the historic oversupply of emissions allowances in the European carbon market and provide long-term carbon price stability. However, observers point to urgent need for review, arguing that the MSR's regulatory complexity may ultimately "destabilise the market rather than stabilise it" (Pahle and Quemin 2020).

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called governance regulation (Regulation on the Governance of the Energy Union and Climate Action) was to integrate and align existing planning, monitoring, and reporting obligations. However, the regulation was significant beyond addressing overlap, fragmentation, and red tape. By asking member states and the Commission to draw up strategies with a perspective of at least 30 years, it enabled for the first time long-term, whole-economy national planning in line with the Paris Agreement's goals, already planting the seeds for a European climate law (Meyer-Ohlendorf and Meinecke 2018). It also shifted the relationship between the Commission and member states, from top-down planning towards mutual accountability, giving member states more ownership of transitional planning, while simultaneously strengthening their procedural obligations and the Commission's monitoring powers (Oberthür 2019). However, it is unclear whether member states are prepared to do their homework under the governance regulations, with a significant number failing to submit complete NECPs on time (Morgan 2019) or failing to outline comprehensive plans on phasing out fossil fuels (Van der Burg, Trilling, and Gençsü 2019).

3.3. Towards a Climate Neutral Europe?

The last two years have seen many, often contradictory, shifts in the *problem*, *politics*, and *policy* streams on the international (UNFCCC) and European (EU and member states) level. On the international level, the past two COPs have not inspired much confidence that state parties are willing to deliver on the Paris Agreement's goals. Even the basic recognition that unprecedented changes are necessary to avoid dangerous global warming (*problem* stream) has become a matter of disagreement again, after the US and other major fossil fuel producers refused to endorse the IPCC's report on global warming of 1.5°C at COP-24 (McGrath 2018). This is despite the fact that the past five years have been the warmest on record, on average 1°C above pre-industrial levels (McGrath 2020). The latest climate negotiations in Madrid have been widely described as a "disappointment" (UN News 2019) if not a "staggering failure" (Vaughan 2019), with states showing little appetite to significantly scale up ambition (*politics* stream) and no innovative proposals emerging to resolve the deadlock on key outstanding issues (*policy* stream). At the same time – partly as a result of stalling international action – recent years have seen unprecedented levels of public engagement on climate change, as evidenced by the birth of the Extinction Rebellion movement as well as the rise of Swedish climate activist Greta Thunberg and the success of the Fridays for Future strikes, which saw millions of young people around the world walk out of school in order to demand stronger climate action (*politics* stream). It is too early to tell what effect COVID-19 will have on the global response. While Patricia Espinoza, the Executive Secretary of the UNFCCC, observes that the pandemic "has, in many cases, demonstrated that societies can, when necessary, pull together to address a global challenge with bold responses" (UNFCCC 2020), others are

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much less optimistic about the future prospect of global governance, arguing that the pandemic will entrench "the fundamental characteristics of geopolitics today," characterized by faltering global cooperation and increasingly antagonistic great power rivalry (Haass 2020). That said, the outcome of the 2020 US elections as well as China's surprise pledge to achieve carbon neutrality by 2060 (Mallapaty 2020) could boost the prospect for more collaborative global action.

On the European level, COVID-19 threatens to undermine a fragile convergence of the *problem*, *politics,* and *policy* streams. Before the pandemic, climate change polled as the second most important problem facing the EU in Eurobarometer opinion surveys (Eurobarometer 2019). The declaration of a "climate and environmental emergency" by the European Parliament (Rankin 2019), following similar declarations by European cities, regions, communities, and states, confirmed that global warming was being recognized as a top concern (*problem* stream). In the *politics* stream, important changes included the election of the "greenest" European parliament in EU history (Brunsden 2019) and the confirmation of a new Commission under the leadership of Ursula von der Leyen who immediately declared climate a "signature issue" (Farand 2019a). European leaders managed to commit to a climate-neutral EU by 2050, even though the Council remains divided and Poland secured an opt-out from implementing this objective (Mathiesen 2019). In the *policy* stream (as will be explored further in Section 5), the idea of a European climate law, which had long been advocated for by various policy entrepreneurs, has been picked up by the new Commission, which put it at "the heart" of the proposed European Green Deal (European Commission 2020a). The EU has also adopted new types of instruments, including regulations on disclosure and taxonomy, that are aimed at enhancing transparency in the private sector and helping investors and other shareholders understand whether an economic activity is environmentally sustainable and consistent with climate policy commitments or not, with potential ripple effects across other jurisdictions (Farmer and Thompson 2020).

The European Green Deal is significant because it lays out, for the first time, an integrated, long-term plan for European decarbonization policy, covering all sectors of the economy. Many of its components build on existing EU policies and regulations, making it, in the words of one observer, "revolutionary in concept but deeply familiar in its details" (Tsafos 2020). Significantly, the European climate law, once adopted, will turn the political commitment for a climate-neutral Europe by 2050 into a legal obligation. This would impose a duty on member states and EU institutions "to take the necessary measures to enable the collective achievement of the climate-neutrality objective" but without prescribing what measures are to be taken (European Commission 2020b, p. 4). To ensure consistency with the 2050 net-zero target, the Commission has proposed to raise the current 2030 GHG emissions reductions

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target from 40% to “at least 55%” and to enshrine this intermediate target into the climate law. While the European Parliament, in line with scientific recommendations, has voted in favor of a more ambitious 60% target, finding agreement among member states will be difficult, with many resisting even the 55% reduction commitment (Sánchez Nicolás 2020b).

The Green Deal has been promoted by the Commission not just as a new climate strategy but “a new growth strategy” for Europe (von der Leyen 2019). Beyond climate-related objectives, it also addresses issues such as waste, pollution, biodiversity, and sustainable food consumption. To ensure that this broad vision of a green Europe is inclusive, a Just Transition Mechanism has been announced that will mobilize EUR 100 billion to support especially vulnerable sectors and regions. Politically, the Just Transition Mechanism is designed to bring on board countries such as Poland which find it more difficult to commit to carbon neutrality. While the holistic approach of the Green Deal has been broadly welcomed by green campaigners, business associations, and other stakeholders, many of its specifics have invited fervent criticism. Climate activists have highlighted the failure to propose a more ambitious 2030 target, with the suggested 55% only slightly above the business-as-usual scenario (Sandbag 2019). Others have voiced concerns that the promised Just Transition funds are insufficient (Simon 2020) and, worse, might not reach those who need them most (Gabor 2020). Another issue that is likely to receive pushback is a provision in the proposed climate law that would empower the Commission to raise emission targets after 2030 by delegated act. This has been interpreted by some as a power grab by the Commission, especially given that the current draft law does not include suggestions for independent institutional structures to provide advice and hold the Commission to account (Financial Times 2020; Interview 2).

Growing calls for a “just transition” within the EU and elsewhere also put the spotlight on the distributional effects of climate action. As Aklin and Mildenberger (2018) argue, climate policies are shaped significantly by domestic distributive conflict and, ultimately, their effectiveness depends on the existence of sufficiently powerful pro-climate constituencies. Recent experiences, such as the “yellow vests” protests in France, highlight the critical importance of societal buy-in for the transition to a post-carbon economy. The COVID-19 crisis has further accentuated such distributional challenges. It has also disrupted policy planning at all levels and is likely to “distract attention and divert resources away from focusing on the climate crisis”, at least in the short term (Norton 2020). In the aftermath of immediate crisis management, priorities will inevitably shift towards rebuilding the European economy and public health systems. This has already prompted some political leaders to call for the European Green Deal to be put aside (Euractiv 2020). Yet, many others have highlighted the opportunities of linking the climate challenge and the COVID-19 crisis, including by making

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sure that stimulus funds will be directed towards activities that are in line with the goals of the Paris Agreement and the proposed Green Deal (Chassagne 2020). As EU climate commissioner Frans Timmermans emphasized, the fundamental idea behind the European climate law is precisely to make sure that more immediate crises do not distract from these long-term objectives: "it allows you to focus on other things without losing track of what you need to do to reach climate neutrality" (qtd. in Rankin 2020). While COVID-19 presents an extraordinary and urgent challenge with disastrous short- and long-term consequences, recovery is not in question. The same cannot be said about climate change which threatens a complete breakdown of the natural systems upon which all human life depends.

In conclusion, this section has demonstrated how MLG dynamics have shaped EU climate governance and how, at different points in time, the *problem*, *politics*, and *policy* stream have converged, opening windows of opportunity for various policy entrepreneurs to push for radical change. The EU's joint engagement with the UNFCCC regime has allowed EU-level policy entrepreneurs (notably the Commission) to couple external climate leadership ambitions with internal integration objectives.[8] In turn, EU member states and individual national leaders have directly and indirectly shaped the direction of European climate policy and made their mark on UNFCCC regime development (e.g. when acting as COP hosts). Engagement with the UNFCCC regime can also bolster the leverage of private policy entrepreneurs. For example, the temperature goals enshrined in the Paris Agreement provide an anchor for private carbon disclosure initiatives and transparency arrangements (Science Based Targets n.d.) and could boost domestic climate change litigation by environmental groups and citizens (Wegener 2020). However, as we move into the section on ASEAN, it is important to reiterate that MLG structures in the EU context have by no means consistently facilitated ambitious leadership and multi-level reinforcement. The complexity of EU climate diplomacy and governance makes it difficult to agree on joint positions and opens up space for status-quo interests to resist policy change or obstruct implementation. The five largest fossil fuel companies alone have spent at least 250 million on EU lobbying over the past decade, spiking "at times when legislation is being drawn up" (Laville 2019). While the EU is less politically, economically, and culturally diverse than ASEAN, member states differ significantly in terms of aggregate performance and the ambition reflected in domestic laws and policies (see Figure 2). As the discussion on COVID-19 and the future of the European Green Deal demonstrates, the question of how to balance economic, social and environmental objectives – and whether a "balance" is indeed viable – also continues to vex EU climate governance. The EU has partially

[8] Similar dynamics are also apparent in other policy areas, for example the EU's Common Agricultural Policy (CAP), where past reforms have been catalyzed by a combination of endogenous pressures and exogenous constraints under WTO (Burrell 2009).

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decoupled GHG emissions from economic growth, yet the continued prioritization of the latter threatens to undermine efforts to substantially decarbonize the European energy systems (Bernstein and Hoffmann 2019). By the EU's own admission, "[i]mplementation will have to be accelerated significantly" to achieve the current 2030 climate and energy targets, let alone the goal of a climate-neutral Europe by 2050 (European Commission 2019).

Figure 3: Consecutive ranking of six EU-28 member states in the Climate Change Performance Index, 2008-2020 (CCPI n.d.)

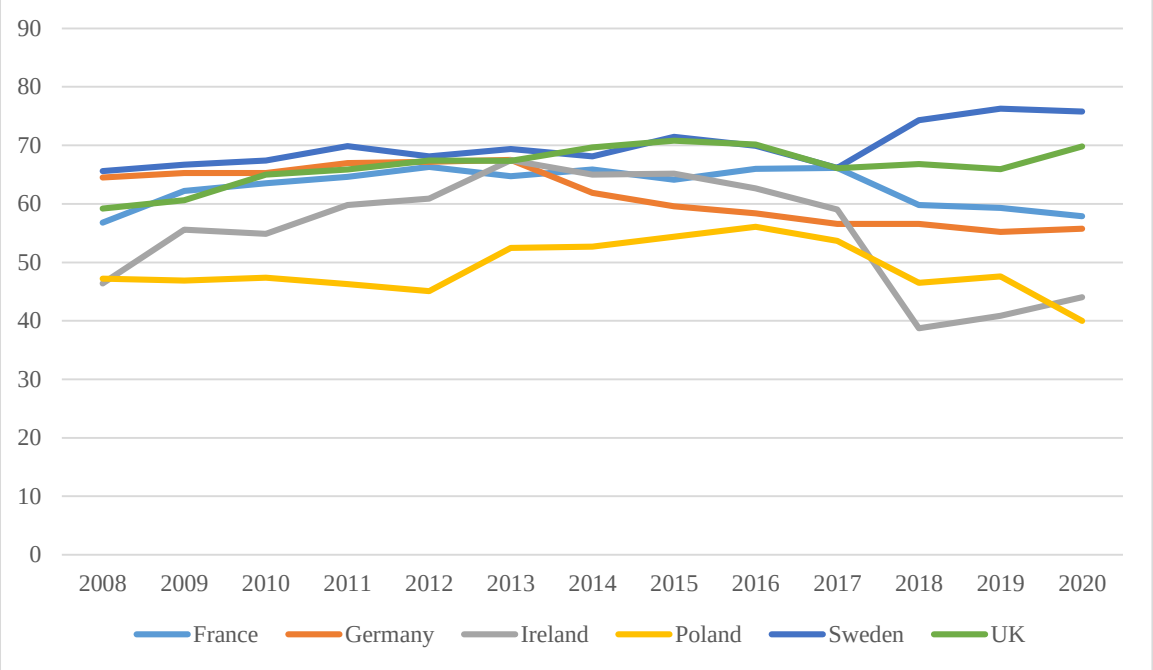

Table 1: MSF Dynamics and Climate Policy Development in the EU, 1992-2020

Time Period	MSF Dynamics
1990s: The EU establishes itself as one of the most proactive actors internationally and manages to upload many of its design preferences during the Kyoto negotiations. Yet, joint policy development is slow.	Climate change is not yet seen as a high salience issue (*problem* stream) and political willingness to develop joint climate action beyond soft mechanisms is low (*politics* stream). The Commission's carbon tax proposal fails due to divisions in the Council, stymying the further development of joint policies and the harmonisation of member state activities in relevant areas (*policy* stream).
~2000-2008: The EU is instrumental in developing the Kyoto rulebook and bringing the treaty into force. Internal policy development also receives a boost,	In light of heightening scientific and public concern as well as rising energy prices, the EU faces pressure to deliver on its Kyoto commitments while also improving energy security (*problem* stream). Political leaders in key member states seize on

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notably through introduction of the EU ETS and adoption of the first climate and energy package.	climate change as a priority issue and a change of leadership in the Commission paves the way for more ambitious joint action, also supported by activist groups and a growing number of business leaders (*politics* stream). This provides strategic opportunities to push forward emissions trading and an integrated energy and climate policy (*policy* stream).
~2009-2014: During the Copenhagen summit, the EU is largely pushed to the sidelines. In the absence of a Kyoto-successor treaty and in light of internal divisions fueled by the economic crisis, there is little appetite for ambitious climate action.	The need to jumpstart European economies after the crisis largely crowds out climate-related concerns (*problem* stream). Deep divisions run through both the Council and the Commission, new veto-players emerge that resist ambitious climate policies, and the European project as a whole is challenged by the rise of populism and anti-EU movements (*politics* stream). This leads to relative stagnation in the *policy* stream.
~2015-2017: Through successful coalition-building, the EU manages to reclaim a key role during the negotiations in Paris. However, this does not immediately open a policy window for more decisive EU climate action.	Climate change is competing with other urgent issues, including economic growth, the refugee crisis, and heightened security concerns (*problem* stream). The election of Donald Trump reduces momentum for decisive international climate action. Internally, the EU remains divided, facing a continued trend towards populism and the fallout of the Brexit vote (*politics* stream). Yet, the Paris Agreement catalyzes some movement in the *policy* stream, above all a reorientation towards long-term decarbonization pathways rather than ad-hoc emissions reductions.
~2018-2020: Internationally, negotiations on the Paris rulebook are largely deadlocked although developments in the late-2020s (US elections, new commitments by China) could foster a more collaborative spirit going forward. The proposed European Green Deal reflects renewed commitment to climate action, however, this could be watered down in light of COVID-19.	Record heat waves and calls for urgent action from the IPCC push climate change up the agenda. Along with several cities and national legislatures, the European Parliament, declares global warming an “emergency” (*problem* stream). 2019 also sees a surge in climate protests and youth climate strikes. Green parties make big gains in the European parliament elections and the new Commission seizes on climate change as a “signature issue” (*politics* stream), paving the way for the European Green Deal, including a climate law to enshrine the EU’s commitment to climate-neutrality by 2050 (*policy* stream). However, division between member states remain and COVID-19 could undermine ambitious action unless there is a credible commitment to a truly green recovery.

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4. ASEAN Climate Governance and Engagement with the UNFCCC: Restricted by Asymmetries in Domestic Policy Processes

Key Insights

- In contrast to the EU, ASEAN has not engaged with the UNFCCC regime as a bloc and regional policy development on climate change and related issues has not progressed beyond soft collaboration mechanisms, with the notable exception of the legally binding Agreement for Transboundary Haze Pollution. Under the Kyoto Protocol, ASEAN member states had no mitigation responsibilities and until quite recently, their engagement with the UNFCCC regime has largely focused on defending a narrow interpretation of the common but differentiated responsibility (CBDR) principle. As such, there have historically been few opportunities for cross-fertilization between governance levels.
- Whereas advanced and dynamic MLG structures in the EU provide opportunities for policy innovation and multilevel reinforcement, these structures are underdeveloped in ASEAN, providing few access points for non-elite policy entrepreneurs. There are no empowered and politically independent supranational bodies, equivalent for example to the European Commission, that could forward policy alternatives. Meanwhile, domestic political economies provide little incentives for national leaders to push for ambitious regional policy development and greater harmonization of climate action.
- This is illustrated through the examples of Indonesia and Singapore, both major emission hubs in the region. Notwithstanding radically different economic and political systems, as well as different levels of state capacity, both countries display low climate ambition due to entrenched elite interests that prevent the opening of windows of opportunity for more ambitious climate action. This suggests that the three MSF streams (*problem*, *politics*, and *policy*) are not necessarily in constant flux. Rather, highly asymmetric *politics* streams in ASEAN member states restrict the development of policy alternatives.
- However, there are some promising developments. The shift towards bottom-up pledges and a more nuanced interpretation of the CBDR under the Paris Agreement has opened up opportunities for more constructive engagement between ASEAN and other UNFCCC state parties, such as the EU, notably through REDD+ programs and efforts to build capacity for measurement, reporting, and verification (MRV) of

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GHG emissions. In addition, ASEAN countries have become more responsive to transnational global reporting and transparency initiatives, although this engagement remains selective and rooted in narrow problem frames that are closely linked to elite agendas.

4.1. Introduction: A Weak Regional Governance Framework for Climate Change

Compared to the EU, ASEAN climate policy is a product of a very different set of multi-level governance dynamics. ASEAN member states (AMS) have attempted, rather unsuccessfully, to "upload" their own policy preferences at the UNFCCC. These policy preferences are substantively different from those of the EU – i.e. that developed countries bear the main burden of emissions reductions while offering financial and technical assistance to developing countries to kick-start their own preferred climate strategies. This had led to a gridlock in negotiations particularly around the time of the Copenhagen Accord. A significant stumbling block was the ASEAN interpretation of the common but differentiated responsibility (CBDR) principle that differs significantly from that of more progressive climate leaders such as the EU.

However, the EU-led change of approach towards developing countries in the lead up to the Paris Agreement has led to an expansion of constructive engagement over specific policy instruments between climate leaders and individual AMS. This represents an improvement from earlier COPs where AMS, like most governments in the global south, have sat on the periphery whilst calling on developed nations to take sole responsibility. This increased engagement has led to some tangible benefits, with all AMS making nationally determined contributions for the first time and an increasing institutionalization of measurement, reporting, and verification (MRV) frameworks across the region. However, regional climate policy continues to lag behind in terms of substance and ambition. While much of the literature has focused on ASEAN's consensus model as an obstacle to regional integration, we discovered that this was not always the case. Within the frame of multilevel governance (MLG), we locate the limitations of ASEAN climate policy within the domestic political economies of AMS where state-linked politico-business coalitions with vested interests in carbon-intensive industries wield considerable political power. This prevents the governance of environmental and energy issues from being scaled-up to the regional level, with national and sub-national governance scales preferred by these powerful groups.

These structural features of Southeast Asian societies mean that the *politics* stream is often found to be highly asymmetrical against non-elite actors who could otherwise drive more

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ambitious climate action. While Kingdon's multiple streams framework (MSF) typically views each of the three streams as separate, we notice that asymmetries in the *politics* streams limit the development of the *problem* and *policy* streams. The entrenchment of these coalitions within domestic state apparatus mean that the policy problem is often articulated together with narrower concerns for economic development models that benefit elite groups. Such political arrangements also limit the range of policy alternatives that can be forwarded by policy entrepreneurs and non-elite actors. Consequently, progressive agenda-setting at national and regional scales have not occurred as the *politics* stream is bogged-down by powerful obstructers.

At the same time, the increasing transnationalization of politically protected domestic capital means that the latter become increasingly subject to global market pressures for environmental sustainability and climate transparency. However, the framing of the policy problem remains limited to that of market and investment access for politically powerful factions of domestic capital. As a result, political and business elites in the region are moving towards a slew of market-based climate solutions that involve the selective "downloading" and mobilization of global meta-governance codes. Overall, the problem frame remains narrow and tightly bounded to elite economic agendas rather than driving an increase in climate ambition. This suggests that any attempts to simply "transplant" EU-type policies and government frameworks into the ASEAN context are unlikely to be successful. If ambition is to pick up, domestic *politics* stream will have to become more accessible to non-elite interests.

4.2. From Rio to Paris: ASEAN at the UNFCCC

Mahathir at Rio, 1992: the prerogative of development

"When the rich chopped down their own forests, built their poison belching factories and scoured the world for cheap resources, the poor said nothing. Indeed they paid for the development of the rich. Now the rich claim a right to regulate the development of the poor countries. And yet any suggestion that the rich compensate the poor adequately is regarded as outrageous. As colonies we were exploited. Now as independent nations we are to be equally exploited." (Mahathir Mohamad, Rio Earth Summit, June 1992)

The ASEAN stance towards the UNFCCC regime can be traced back to a speech given to the Rio Summit in June 1992 by then-Prime Minister of Malaysia, Mahathir Mohamad. In his speech, Mahathir crucially recognized the problem of climate change and the necessity of global action. More specifically however, he stressed that it was developed countries, who have enriched themselves at great cost to the environment (and to developing countries), that should bear the burden of climate mitigation. As such, developing countries should not be

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starved of the opportunity to economically develop because of this. From this point of view, effective climate action critically depended on the actions of developed countries as "…it is what the rich do that counts, not what the poor do, however much they do it." Mahathir was soon hailed as the champion of the developing world, and his speech was influential in keeping the agenda of sustained economic growth of developing countries on the climate agenda (Varkkey 2019).

Mahathir's speech at Rio proved to be characteristic of ASEAN member states' (AMS) subsequent interpretation and engagement with the nascent UNFCCC regime. From ASEAN's adoption of the Berlin Mandate at COP-1 to post-Paris Agreement, AMS have continued to prioritize economic development over climate goals. At the same time, AMS have largely accepted IPCC findings and recognized their own vulnerability to climate change. Their concern with the climate is owed to the recognition that climate change "erodes developmental gains" (G77 2017). AMS have attempted to use UNFCCC fora to "upload" their own policy preferences: to push for developed countries to (i) increase their own legally-binding contributions to reflect historical emissions trajectories; and (ii) provide more generous financial and technical assistance to developing countries. Such policy preferences are limited in substance and lack political leverage because of the diversity of national circumstances within ASEAN. This diversity, in turn, has led to a very fragmented ASEAN approach in climate negotiations. These limitations have to a small extent been mitigated in the years leading up to Paris as negotiations have expanded into specific mechanisms.

Nonetheless, the overall "development preference" of AMS have remained a constant obstacle to more progressive climate action in the region. These "development preferences", in turn, are tied to the interests of dominant elite groups and their political constituents (often patronage networks) within respective societies. These coalitions have long been beneficiaries of expansions to extractive industries, particularly in fossil fuels, forestry, and mining.

The ASEAN position from COP-1 to COP-17

AMS belong to different groups in climate negotiations and have not managed to speak with a united voice. The China-led G77, where almost all AMS are members, is highly diverse and its position in climate negotiations has been described as a "lowest common denominator" approach that reflects this diversity (Goron 2014, p. 105). ASEAN in-itself also straddles considerable diversity in terms of geographical and developmental conditions and lacks a "common narrative" in negotiations as ASEAN joint statements on COPs do not stand out from G77 statements (ibid, p. 108). Instead, AMS have participated in a range of diverse coalitions such as the Association of Small Island States (Singapore, somewhat inappropriately), the

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Like Minded Developing Countries coalition (Indonesia, Malaysia, Philippines, Vietnam), the Least Developed Countries group (Cambodia, Myanmar, Laos until 2019), the Cartegena Dialogue for Progressive Action (Thailand, Indonesia), and the Coalition for Rainforest Nations (Indonesia, Laos, Malaysia, Thailand, Vietnam) (ibid, p. 105). This diversity is further complicated by ASEAN's consensus model of decision making where nothing is purportedly done without the consent of all ten members. Despite this, AMS have found some common ground at UNFCCC negotiations, largely because of overriding concerns over continued economic development in the face of deteriorating climate conditions in the region.

AMS adopted the Berlin Mandate of COP-1 in 1995 with the Jakarta declaration, issued soon after, calling on developed countries to reduce GHG emissions, as well as ratifying the Kyoto Protocol two years later as non-Annex-I parties. However, it was only from 2007 that ASEAN started issuing regular joint statements in response to developments at the COPs. It was from this point that ASEAN emphasized their collective vulnerability to climate change. This was largely down to the region's own experience with climate disasters in the 1990s and 2000s, particularly the annual transboundary haze caused by forest fires in Indonesia and spreading to neighboring Malaysia and Singapore. Such experiences, coupled with the findings of the fourth and fifth IPCC assessment reports (2007 and 2014), created an urgent sense among ASEAN leaders that climate change was indeed a threat to economic growth and livelihoods in the region.

The acceptance of science and regional vulnerability did not immediately translate into progressive or constructive positions at the UNFCCC. At COP-13 in Bali (2007), as parties started negotiating on a post-Kyoto framework, ASEAN underlined the importance of fossil fuels, together with the possibility of renewables, for future economic growth of the region (ASEAN 2007). While the EU's bid to press for ambitious climate targets were rejected by a number of parties including the United States, AMS stood at the boundaries calling on Annex-I parties to lead emissions reductions and fulfil commitments to climate finance and technology transfer for the developing world. Two years later, as COP-15 at Copenhagen failed to find a successor to Kyoto, ASEAN again called for Annex-I parties to take "deep and early cuts" to emissions, while tying their own voluntary emission cuts to the availability of financial and technical assistance (ASEAN 2009). In the same statement, ASEAN reminded Annex-I parties that unilateral mitigation and adaptation measures should not have an adverse effect on economic growth in the developing world. At COP-17 in Durban (2011), as the gap widened between climate leaders and "laggards", ASEAN urged developed countries to enhance their GHG reporting frameworks and to take on more ambitious emissions cuts of 25%-40% based on 1990 levels (ASEAN 2011). Again, ASEAN stressed the willingness of member states to make voluntary reductions while more ambitious cuts were to be contingent on international

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support. Predictably, ASEAN also stressed the importance of the continuation of an open economic system that would promote inclusive growth, further suggesting that emissions cuts in the Global North should not impede the economic development of the South.

On a broader level, a significant stumbling block to climate negotiations between Annex-I and non-Annex parties has been different interpretations of the "common but differentiated responsibilities" (CBDR) principle. While the EU sees itself as taking on a leadership role, it also sees the responsibilities of developing countries as flexible and evolving. For AMS, on the other hand, the CBDR principle more strictly means that the burden of mitigating climate change falls squarely on developed countries (Goron 2014, p. 109). This has led to a gridlock in negotiations between more progressive climate leaders such as the EU, and "laggards" like AMS, particularly in negotiating a successor to Kyoto. However, negotiations leading up to the Paris Agreement offered some opportunities for an expanded and more constructive engagement between these two camps.

Opportunities for constructive engagement on the path to Paris

From 2012, the official climate position of ASEAN started to expand with the Bangkok Resolution on ASEAN Environmental Cooperation. The resolution framed climate change as an issue of sustainable development, allowing AMS to maintain that economic growth was the primary concern while affording significant spaces for mitigation and adaptation plans that would complement or safeguard growth objectives (ASEAN 2012b). At the same time, the progress of climate negotiations towards Paris coupled with worsening climate prospects in the region provided an opportunity for ASEAN to broaden the scope of its engagement.

The period from 2012 onwards sees AMS discovering more points to engage on, much of this spurred by the bottom-up nature of the Paris Agreement as well as several issues surrounding (but possibly unresolved at) Paris. COP-19 in Warsaw (2013), for instance, saw AMS push for the finalization of REDD+ mechanisms financed by the United States, the United Kingdom, and Norway. The REDD+ is a results-based carbon reduction program where developing countries are financially compensated for conserving forests based on the amount of CO2 emissions prevented. Certain AMS, particularly Indonesia and Vietnam, are keen on REDD+ mechanisms as it would offer generous financial rewards/compensation for conserving forests at risk of illegal logging or being cleared by fires to make way for commodity production. There has been some positive progress on this front. In 2018, Vietnam became the first country in the Asia Pacific to meet the obligations of the Warsaw Framework and become eligible for REDD+ payments (Hicks 2019). In May 2020, Indonesia received an initial payment of US$56 million (out of a US$1 billion pledge) from the Norwegian government for overseeing a decline

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in deforestation rates between 2016 and 2017 that resulted in emissions reductions of 11.2 million tons of CO2-equivalents, greater than original targets (Pinandita 2020).

Also, in the wake of COP-19, ASEAN pushed for the finalization of a Loss and Damage mechanism as an "urgent priority" (ASEAN 2014). This bid eventually failed as the United States continued to reject it (Goodell 2015). Close to the finalization of the Paris Agreement in 2015, ASEAN encouraged member states to take on emissions cuts that work for them while requesting support from Annex-I parties for developing measurement, reporting, and verification (MRVs) systems (ASEAN 2015). The engagement on MRVs was particularly constructive as it was an opportunity for more progressive parties in the UNFCCC to hand down "best practices" to developing country parties who might have some technical capacity but were largely unprepared to adopt stringent emissions monitoring. At the same time, the transparency framework offered by Paris allowed AMS to set their own conditional and unconditional targets, moving their attention from the actions of Annex-I parties alone to accessing their own capacities for measuring and reporting emissions.

Overall, AMS were satisfied that Paris delivered their desire for a "balanced and comprehensive protocol" (ASEAN 2014; 2015). The voluntary nature of Paris allowed AMS to start work on climate goals that allowed them to "play a different game" – offering their own climate initiatives to attract international support and funding. The bottom-up nature of the Paris Agreement offered a more inclusive basis for constructive engagement between Annex-I and non-Annex parties previously deadlocked on contrasting interpretations of the CBDR principle.

4.2. Explaining the Limits of ASEAN Climate Policy

Despite recent progress that has seen AMS latch on to more constructive dialogues on global policy mechanisms, ASEAN's own climate policy has been extremely limited. Its nascent framework for climate change only started to take form from 2009 with the creation of the ASEAN Working Group on Climate Change (AWGCC) as part of the ASEAN Socio-Cultural Community (ASCC). It is telling that climate action is organized under ASEAN's third and least prioritized "pillar", after the ASEAN Political-Security Community (APSC) and the ASEAN Economic Community (AEC). The AWGCC was formed as a consultative body that would support coordination and collaboration between sectoral bodies of AMS but provides little in way of policy harmonization or leading climate action in the region. The ASEAN Action Plan on Joint Response to Climate Change that followed in 2012 was vague and contained no targets, while almost half of the follow-up actions had no lead countries (ASEAN 2012a).

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Nonetheless, a long list of ASEAN environmental initiatives was subsequently launched for a range of sectoral issues. These include REDD+ and forest management and protection systems, water management systems, coastal rehabilitation systems, biodiversity management and ecosystem rehabilitation, agriculture and food security, and peatland management, among others (ASEAN 2018). These appear to be mostly knowledge and collaboration platforms where interested member states can share experiences and knowledge with each other, as well as pick up any initiatives that might work for them (Caballero-Anthony 2012). These do not actually involve targeted emissions reductions, nor are they legally-binding, but allow interested parties to adopt management frameworks that may support individual national initiatives. In other words, ASEAN environmental policy is not policy prescriptive or even a set of recommendations for its members, but an available toolkit that can be utilized by interested members based on highly problematic "national preferences."

It appears that ASEAN regularly highlights these initiatives to address the negotiation deadlock with developed countries over climate financing and technology transfer in UNFCCC fora. Annex-I parties (particularly, EU member states) are not keen to provide generous financing and support packages for developing countries if the latter do not already have ambitious climate targets or environmental initiatives. AMS, like most developing countries, are distrustful of this process – they are afraid to commit less they are held to account for such promises (Goron 2014, p. 111). Rather, they are only keen to undertake more ambitious targets if support is forthcoming. This leads to deadlock – Annex-I parties are waiting to see what non-Annex parties have planned before funding; while non-Annex parties only want to take concrete steps if support is forthcoming, less they are held accountable for targets they do not have the capacity to meet. ASEAN's regular highlighting of these "framework initiatives" are attempts towards a middle ground – they signal to Annex-I parties that needed initiatives are underway and could benefit from funding. As the recent examples of REDD+ programs and technical support for developing national MRVs indicate, such initiatives have not only led to constructive dialogues with Annex-I parties but, particularly in the case of REDD+ programs, started to deliver on results. However, the pick-and-choose nature of regional policy instrument means that any progress is still contingent on the "national preferences" of each AMS.

The ASEAN Agreement on Transboundary Haze Pollution, that overlaps with regional and Indonesian domestic peatland management initiatives, is a key exception. For starters, unlike other ASEAN "agreements", it is legally-binding, has a functional instrument and, by 2014, has

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been ratified by all member states.[9] Interestingly, this agreement preceded the Paris Agreement by over a decade– it was created in 2002, largely driven by the governments of Singapore and Malaysia, in response to the transboundary haze crisis of the late-1990s. The transboundary haze was an important focusing event that drove ASEAN elites towards developing a legally-binding instrument to combat forest fires. This agreement effectively rescaled the governance of peatlands and forest fires in Indonesia by creating a regional taskforce to work directly with provincial and district governance actors, and to some extent even local farmers, to monitor and intervene in forest fires. While not primarily designed to target GHG emissions, the agreement has sufficient teeth to tackle forest fires on a transnational scale by allowing regional actors access to local points of regulation. While this initiative successfully got off the ground, it has been regularly undermined by local government figures in cahoots with agribusinesses (Hameiri and Jones 2013). While focusing-events, such as the transboundary haze crisis, have forced political elites in Singapore and Malaysia to push for a scaling-up of haze governance, vested interests at the national and sub-national levels in Indonesia have resisted rescaling and undermined implementation.

More recently, a few regional plans have been floated. The first is the ASEAN Power Grid (APG) that has been on the cards since 1998, with a memorandum of understanding signed in 2012. This initiative appears to have some support with less developed member states who are keen to tap in to address electricity gaps. A regional grid with a larger proportion of renewables also offers advantages for more developed states like Singapore that encounter spatial limitations in adopting renewables. ASEAN targets a 23% share of renewables by 2025 but this, at the very least, would involve the region doubling its current share of renewable energy sources which does not appear on the cards (The ASEAN Post 2019). At the same time, the proposed APG, as part of an integrated ASEAN energy market, would essentially involve the removal of long-standing domestic fuel subsidies to energy consumers (Victor 2009). This would, in turn, prompt significant resistance from state-owned energy firms and politically influential energy-consuming industries (particularly in Indonesia and Malaysia) that owe their predominance to these longstanding subsidies (Jones 2015, p. 16).

Secondly, there has been talk of a regional carbon market in ASEAN driven by desires to adopt mitigation measures that would complement rather than undercut economic growth. Middle-income AMS such as Malaysia, Indonesia, and Thailand have not been keen to adopt a carbon tax out of fears that it would blunt their economic competitiveness. Singapore is the only AMS with a carbon tax that started with a low price of S$5 per ton in 2019, while Thailand

[9] Over half of AMS had ratified the agreement by December 2003. Indonesia, the source of the haze, held out the longest, but finally ratified the agreement in 2014.

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is the only state with a domestic ETS, a voluntary scheme launched in 2015. A regional ETS scheme could considerably ease fears over economic competitiveness and could be a potential building block for climate policy harmonization. However, a recent report on the MRV capacities of AMS has revealed that while most AMS examined[10] did have functioning MRV capabilities for UNFCCC reporting purposes or were in the process of developing them, there were significant capacity gaps between the relatively more developed economies (Singapore, Thailand, Vietnam, Indonesia) and the less developed ones, particularly Cambodia, Myanmar, and Laos (UNFCCC 2019). The latter do not have facility-level MRV capacities, nor do they have the intention of developing them, making it impossible for individual firms or facilities to report, and therefore trade, carbon emissions. Even within the former group, there are significant variations in MRV readiness. Singapore, for instance, has a fully functional mandatory emissions MRV system for firms, including a government-accredited list of third-party verifiers. Indonesia, in contrast, has several different sectoral-based emissions reporting platforms, but no mandatory national reporting standards, while third-party verification appears optional (UNFCCC 2019; Mahardhika et al. 2019; Interview 3)

Explaining regional policy incoherence

The limitations of ASEAN's negotiating position and regional climate policy point towards the absence of policy harmonization metagovernance guidance at the regional level. Such characteristics are not confined to climate policy, but to ASEAN regional integration at large. Scholars have long argued that the "ASEAN Way" of regional integration sees member states adhering to principles of sovereignty, non-intervention, and consensus decision-making that limit the organization's ability to produce legally-binding agreements on a range of issues (Acharya 2014; Stubbs 2019).

Critics have, however, pointed out that such norms have never been absolute and are often invoked by ASEAN elites themselves to justify the lack of progress on regional mechanisms (Jones 2012; Bal and Gerard 2018). Agreements for the AEC are negotiated with a "2+X" approach where two AMS can proceed with regulatory reforms without waiting for others to be similarly prepared. The APG, for instance, follows this "2+X" approach. The APG has, in fact, taken off, but energy grid projects are largely limited to those between Thailand and its less developed neighbors (Cambodia, Myanmar, and Laos), with very limited involvement of Indonesia (the region's largest electricity consumer by far), Singapore, the Philippines, and Malaysia (Ahmed et al. 2017). In other words, ASEAN climate initiatives are often held back

[10] MRV systems in Malaysia were not examined in this report.

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by a lack of support among member states rather than norms of non-interference and consensus.

The “development divide” within ASEAN is significant. Brunei is a small state with an economy largely dependent on oil exports. Singapore has been a capital-intensive manufacturing center since the late-1970s and has more recently reinvented itself as a global financial hub. Malaysia, Thailand, the Philippines, and Indonesia are middle-income countries that are dominated by labor-intensive export-oriented industries. These economies are increasingly facing competition from emerging low-cost production bases both within and beyond the region. Cambodia, Myanmar, and Laos are amongst these emerging economies who are significantly less developed and have only adopted market-based economies relatively recently.

Not unexpectedly, AMS also have significant differences in emissions profiles with vastly different climate targets underpinned by different levels of state capacity and readiness. Singapore has demonstrated the greatest capacity all round – regional first mover in terms of adaptation – desalination capacity, land reclamation. and sea walls to address rising sea levels – but has not demonstrated any leadership at the regional level, though it strives for global market-leadership in green investments. Singapore’s emission profile is relatively unique in the region – a large proportion from the petrochemical industry, with an almost non-existent forestry sector. Also unlike the rest of the region, its energy source is almost entirely natural gas (96%). The region’s largest emitter, Indonesia, sees a large proportion of its emissions come from the forestry sector, and its own national climate plan rests heavily on reductions there. Malaysia is another odd case – under the recently overthrown Pakatan Harapan government, the state itself contained several divergent tendencies with some sections promoting progressive climate policies while others are involved with hard lobbying for the country’s controversial palm oil industry (Varkkey 2019). Even within the former group, progressive climate policies were not followed by developing MRVs required by Paris (Yeo 2018).

It is also noted that ASEAN’s own strategy of economic growth is exclusionary in that ASEAN consistently excludes competing agendas (particularly in the space of human and labor rights) that pose a threat to entrenched models of economic development within individual states (Gerard 2014). ASEAN’s attempts to engage with regional civil society has also been highly troubled – groups with agendas incompatible with ASEAN’s preferred growth model (including certain environmental NGOs and activists) have been excluded from regional policy forums (ibid).

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Despite variations in national circumstances, the region is largely wedded to high emissions models of development reflected by the eminence of extractive industries and fossil fuels (Gellert 2020; Hatcher 2020). These forms of "resource dependency" are tied to the interests of dominant elite groups (often politically connected factions of capital) and their constituents within respective societies. These factions of capital historically owe their market dominance to political patronage (with the exception of Singapore) and protection in the form of favorable economic policies, state subsidies, and the suppression of competing societal interests such as organized labor. Political elites, on their part, have gained considerable political support from redistributing the resultant economic gains to their respective support bases. Despite the economic and political upheavals that followed the end of the Cold War and the Asian Financial Crisis, such politico-business coalitions have endured or been reconstituted and remain deeply enmeshed within state apparatus. Key industries in the region, particularly forestry, mining, and fossil fuels (notably coal and petroleum products), have long been under the control of these entrenched alliances who have benefitted considerably from the expanding global and domestic demands for energy and resources. Environmental degradation is therefore not just an "externality" or "side effect" of economic activity, but a fundamental feature of the region's developmental model (Gellert 2020, p. 374).

These material conditions, in turn, have profound implications for climate agenda-setting at both regional and national scales of governance. Coalitions that would typically be seen as climate policy obstructers are often deeply enmeshed within state apparatus, while existing national and regional institutions have been geared towards serving dominant interests. Such asymmetrical "balance of interests" in the *politics* stream mean that policy windows in the region can only be opened when policy alternatives are expedient for elite problem-solving.

This has become more evident in light of recent developments that see certain politically protected factions of capital in the region become increasingly transnationalized as they seek to diversify their investment portfolios and expand beyond national borders (Al-Fadhat 2020). Government-linked Corporations (GLCs) in Singapore and large business conglomerates in Indonesia are two examples which will be elaborated on in the following section. While not a proper "focusing event", the internationalization of domestic capital has opened narrow policy windows for ASEAN elites to grapple with new problems. Conglomerates and GLCs are increasingly exposed to global market pressures for sustainability reporting and climate transparency as they attempt to access new consumer markets and investment flows. As a result, these powerful factions of capital in the region have started to lead industry initiatives for voluntary environmental standards, environmental and sustainability governance/reporting, and carbon disclosure, among others. These initiatives have sometimes been supported by states but, at other times, been adopted to address the lack of

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consistent state regulations. The proliferation of private sector sustainability standards in the region, however, does not necessarily indicate the adoption of progressive climate action. As the following two case studies illustrate, private meta-governance norms from the market are "downloaded" selectively and mobilized by business groups as fixes for problems of market access and investment opportunities rather than for the larger problem of environmental degradation. While a window of opportunity has opened, the asymmetric *politics* stream means that the "downloading" of private meta-governance codes are geared towards elite problem-solving rather than emissions reductions.

4.3. National Experiences of ASEAN Member States

The national experiences of Indonesia and Singapore demonstrate the importance of domestic political economic dynamics, particularly the roles of oligarchic and state capital respectively, in limiting the efficacy of multilevel climate governance. Indonesia and Singapore were selected as case studies because policy processes in both countries are constrained in a similar manner, despite significant differences in national circumstances and capacity levels, indicative of the barriers that stymie climate policy development in the ASEAN region as a whole. Both countries are major emission hubs in the region, albeit for very different reasons, and will thus be key to any future climate-related initiatives at ASEAN level. However, the prospect for such initiatives to emerge are limited due to the asymmetric importance of powerful politico-business coalitions in national-level (and, by extension, regional-level) *politics* streams. This, in turn, has implications for how issues are framed and prioritized in the *problem* stream and who can forward alternatives in the *policy* stream.

Indonesia: Extractive industries and oligarchic power

Indonesia is the largest GHG emitter in the region and 11th in the world, ahead of Mexico, Brazil, and the United Kingdom. A large proportion – 65.5% - of its emissions come from forestry and land-use-change, with the sector plagued by illegal logging and forest fires. The energy sector contributes to 22.6% of total emissions as coal-fired power plants produce electricity beyond domestic demand (USAID 2017, p. 201; WRI CAIT 2019). Agriculture (7.4%), waste (3%), and industry (1.4%) make up the rest of the country's emissions profile. At the UNFCCC, Indonesia has pledged to unconditionally reduce its emissions-intensity[11] by 29% and by up to 41% conditional on international support (Republic of Indonesia 2017). Climate Action Tracker rates these targets as "highly insufficient" but notes that recent policy projections indicate modest improvements (Climate Action Tracker 2019). Indonesia's

[11] Like many developing countries, Indonesia's climate plan revolves around reducing emission-intensity in relation to GDP rather than real emissions. Such plans essentially mean that real emission will continue to rise as GDP grows, but at a slower rate.

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mitigation strategies are highly dependent on reductions in the forestry sector, making up 59.3% of total intended reductions. A significant 37.9% of emissions reductions are to come from the energy sector. This means that over 97% of Indonesia's NDCs will have to come from emissions reductions in these two highly problematic sectors. Not only are the forestry and energy sector by far the two largest emissions contributors but feature the strongest entrenched factional interests in Indonesian politics and society. The case of Indonesia is therefore instructive for understanding multi-level governance dynamics as it allows us to locate the sources of implementation obstacles and opportunities for innovation within domestic political-economic dynamics.

Institutional arrangements of climate governance in the country are not very cohesive and contain significant implementation gaps. While the Ministry of Environment and Forestry sets national emissions reduction targets, makes national adaptation laws, and records GHG emissions, the Ministry of National Development and Planning (Bappenas) handles the implementation of these targets by interfacing between central and local governments, and between different line ministries (Republic of Indonesia 2013). For instance, the Ministry of Environment sets the emissions mitigation targets, Bappenas uses these targets to set national mitigation plans, while line ministries report and monitor the implementation at the local level through their respective directorate generals (DIRJENs). Significantly, coordination between different government agencies is non-linear as it regularly involves a two-way flow. Climate and environmental policies at the top are, in practice, often policy recommendations which local government bodies may or may not implement (Republic of Indonesia 2013; 2014) While such institutional arrangements allow for more local government input and discretion, they also create considerable fuzziness in terms of lines of authority and have the potential to deliver inconsistent outcomes.

A key focal point of Indonesia's emissions reductions in the forestry sector is the Moratorium on Primary Forests and Peatlands. The moratorium was first enacted by the Susilo Bambang Yudhoyono administration in 2011 following the REDD+ agreement with Norway. The initial moratorium was for a period of two years but was extended three times (2013, 2015, 2017), before being made permanent by the Widodo administration in 2019. A key driver of deforestation and forest fires has been the cozy relationship between agribusinesses and local government officials. In concession-heavy regions like Sumatra and Kalimantan, district heads are infamous for creating forestry concessions using shell companies, often owned by their family members (Varkkey 2015). These concessions are then sold off to commercial agribusinesses with the district head and their cronies pocketing the proceeds, rather than the district government. Agribusinesses, on their part, continue to fund the election campaigns of these local politicians who would assure them easy access to forestry concessions. The

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moratorium attempts to halt this very process by attempting to freeze all new forestry concessions.

While the moratorium has indeed made some positive impact on deforestation rates, it suffers from several technical issues that blunt its impact. Firstly, the moratorium does not cover other carbon-intensive extractive activities particularly fossil fuel extraction. Energy and agricultural permits can still be given out and land can still be cleared for these purposes (Murdiyarso et al. 2011, pp. 6–7). Secondly, the amount and type of land covered by the moratorium is limited. The moratorium, understandably, does not cover existing concessions, but also does not cover secondary forests which have greater capacity for carbon absorption (ibid, p. 5). Furthermore, about 70% of the land covered by the moratorium has already been converted to commercial or agricultural use (Wijedasa et al. 2018, p. 19). Finally, the enforcement of the moratorium has been questionable. For instance, in 2015, it was discovered that around 31% of hotspots were within areas purportedly covered by an Indicative Moratorium Map (PIPPIB). Between 2011 and 2016, the number of fires within the moratorium area was estimated to be 28.5% of all fires (Greenpeace Southeast Asia 2017). While not necessarily a disastrous outcome, the implementation and enforcement of the moratorium has had clear limits.

These technical limitations point towards deeper structural factors and entrenched interests with historical roots, with the Peatlands Restoration Agency citing resistance from interest groups and local governments as key limitations to policy efficacy (Badan Restorasi Gambut 2016, pp. 11–12). The New Order era from 1965 saw the regime open forests to logging companies and agribusinesses where control over forests became increasingly concentrated in the hands of oligarchs and state-owned forestry concessions (Gellert 2015, pp. 78–79). While the global demand for palm oil has been often cited as a cause for forest degradation (Indonesia is now the largest global supplier), the induced domestic demand for palm oil is equally significant. This happened through deliberate government policies from the 1970s that substituted cheaper forms of oil (particularly coconut oil) with palm oil (Gaskell 2015, pp. 30–37). The World Bank also actively promoted palm oil as a “development crop” in Indonesia since 1965 (Gellert 2015, p. 80). Neoliberal market reform and political devolution following the fall of the New Order accelerated the expansion of extractive forestry. Political decentralization led to a further proliferation of patronage networks, with Singapore- and Malaysia-based palm oil companies, backed by their respective governments, getting in on the act as palm oil production became increasingly regionalized (Varkkey 2015). ASEAN initiatives to combat transboundary haze have ended up protecting agribusinesses due to their close connections to political elites. For example, the “Adopt-a-District” programs led by Singapore and Malaysia targets small-scale slash-and-burn farmers when commercial plantations account for 80% of the haze (Varkkey 2015, p. 215).

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The energy sector has similar domestic structural issues that expand demand for fossil fuels while limiting the adoption of renewables. Indonesia's Paris commitment targets a 23% share of renewables by 2025, with the current (2018) share of renewables at just 12% (Walton 2019). Sources differ, but coal comprises between 50-55% of the total energy mix, with 26-29% from natural gas and 7% from petroleum (Walton 2019; Sekretariat Jenderal DEN 2019). Most disturbing, however, is the indication that Indonesia is producing electricity in excess of domestic demand, and that the present Widodo administration's industrial development plan is based on significant expansions in coal power (Arinaldo and Adiatma 2019, pp. 4–5).

Following substantial intra-elite friction in the lead up to the 2019 presidential election, president-elect Widodo formed a "grand coalition" of political allies and former rivals based around a national infrastructure project (Wijaya and Nursamsu 2020; Renaldi and Wires 2019). This national project would allow prominent political officeholders and their backers to economically benefit from infrastructural developments in return for their political support, as well as gaining popular legitimacy for the new government by delivering on GDP growth. The role of coal in driving this project is notable as key political figures and their allies hold coal-mining concessions or financial stakes in coal-fired power plants. For instance, Widodo's plan to move the Indonesian capital city from Jakarta to Kutai Kartanegara will drive greater demand for electricity in East Kalimantan. Here, Widodo's supporters and former rivals will be well-placed to benefit as several hold land concessions in that area. A 2019 report by several environmental NGOs names notable individuals who have stakes in companies with land concessions, coal mines and coal-fired plants in the region (Forest Watch Indonesia et. al. 2019). These include the Coordinating Minister for Maritime Affairs and Investment Luhut Panjaitan, prominent oligarch Hashim Djojohadikusumo (brother of current Defense Minister and former presidential candidate Prabowo Subianto), head of Widodo's legal team Yusri Mahendra, and former Vice-President Jusuf Kalla (ibid, see also: JATAM 2019) Predictably, the Indonesian government has continued to allow increases in coal production, with 2000 new mining operations starting up in January 2018 alone. The coal industry receives fifteen unique government subsidies, only seven of which have been quantified by analysts (Clark et al. 2020). In 2015 alone, these seven subsidies were estimated to be around US$946 million (ibid, p. 8). In comparison, renewables only received a cumulative subsidy of US$179 between 2010 and 2015 (ibid).

Further complicating matters is the position of the state-owned electricity provider Perusahaan Listrik Negara (PLN) within these patronage networks. Energy regulations in the country emphasize domestic self-sufficiency, which the PLN leads by working closely with domestic fossil fuel companies that are either state-owned or part of oligarchic networks (Bosnia 2018; Guild 2020). Simultaneously, the PLN effectively prices out renewable energy producers

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through convoluted tariff negotiations and stipulations on local content that preclude the benefits of cheap imported renewable technology from China, among others (Wicaksono 2015; Guild 2019). These tariffs levied by the PLN are often in contradiction with the policies of the Ministry of Energy and Mineral Resources, which is aiming for a 23% renewable energy share by 2025 (Agustinus 2016; Walton 2019). Notwithstanding this, the Ministry themselves have previously imposed their own tariffs on renewable energy, effectively disincentivizing investments into renewables (The Jakarta Post 2017).

Despite these troubles in the forestry and energy sector, more recent developments in the country have seen a private-sector-driven effort towards greater climate transparency in the form of environmental sustainability governance/reporting and a push for greater coherence in state measurement, reporting, and verification (MRV) capacities. The Indonesia Business Council for Sustainable Development (IBCSD), an industry group that significantly includes multinational corporations and large agribusiness, has been at the forefront of these efforts by providing technical support and advocacy to members for sustainability reporting, and engaging with Bappenas and the Ministry of Environment and Forestry on MRV-related issues, among others. The picture that emerges from Indonesia is one where the private sector drives for greater climate transparency through partnerships with state bodies and civil society.

The private sector push for greater climate transparency in Indonesia is, in large part, driven by the increasing transnationalization or internationalization of oligarchic capital in the country. Export-driven economic growth from the 1980s drove segments of politically protected oligarchic capital towards international expansion through mergers, acquisitions, and joint-ventures (Al-Fadhat 2020, p. 178). While initially profiting and growing from state protections and induced domestic demand, oligarchs become increasingly dependent on new export markets and international investments for expansion opportunities. It is in this interface with global consumer and investment markets, particularly outside of Asia, that internationalized Indonesian corporations encounter demands for sustainability governance and carbon disclosure. The EU's phasing out of palm oil from its list of approved biofuel sources due to its negative environmental impacts is an extreme indication of the pitfalls Indonesian corporations face when seeking to expand into markets beyond Asia.

The internationalization of Indonesian capital has led to a proliferation of sustainability reporting among its firms that seek to "fix" the problem of market and investment access on the global stage. A quick survey on the Global Reporting Initiative portal in August 2020 shows at least 151 Indonesian companies filing voluntary reports (although only 9 companies which had reports which were externally validated in part). Since 2010, the ten largest palm oil and pulp and paper producers in Indonesia, including Djarum, Sinar Mas, the Salim Group, and

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Rajawali, have officially committed to sustainability reporting and carbon disclosure in order to meet the growing demand for sustainably-produced commodities. More recently, the Indonesian food processing sector has gotten in on the act as a result of their global mergers and acquisitions. Between 2013 and 2014, for instance, the Salim Group acquired Australian food company Goldman Fielder and Philippine sugar company Roxas Holding, connecting them to their own integrated food processing company Indofoods (The Jakarta Post 2014; Ian and Yap 2014). With its eye on globalizing its production networks and export markets, the Salim Group, at this precise time, sought to incorporate sustainability reporting into their annual reports. Notably, this was something not on the conglomerate's agenda prior to its international expansion (Interview 4).

Yet this proliferation of private-sector-driven climate transparency efforts are not without pitfalls. Globally, debate rages over the effectiveness of market-based solutions and there has, so far, been limited evidence to show that reporting leads to a reduction in emissions (e.g. Tang and Demeritt 2017). Firms are also highly selective in the adoption of a possible array of voluntary standards with limited consistency as to what is being reported (also a recurrent theme in the Singapore case). A proliferation of reports says little about the quality of reporting. For instance, Asia Pulp and Paper's (APP) 2018 sustainability report on GRI, heads-and-shoulders above most Indonesian reports there, compares extremely poorly (particularly in terms of substantive environmental action) with the efforts of EU-based paper producers such as Inggesund Paperboard. Furthermore, evidence from Indonesia suggests that what companies report may not necessarily reflect what they actually do. While APP claims in the same report that it has adopted a zero-deforestation policy, Greenpeace have accused them of clearing new forests through employee-owned companies (Greenpeace International 2018).

The selective mobilization and adoption of voluntary standards is further compounded by the absence of and lack of clarity over mandatory domestic standards in the country. While the Indonesian government has made sustainability reporting mandatory for large companies, no actual standards have been outlined or stipulated (Rosser and Edwin 2010). In response, Indonesian firms have selectively leveraged on an array of global voluntary codes to substitute for the lack of domestic ones (Interview 3). The Japanese government-funded Partnership to Strengthen Transparency for Co-Innovation (PaSTI) is an example of a public-private partnership project where cross-sectoral tensions over reporting standards are managed. The project, run by local think-tank World Resources Institute (WRI) Indonesia, seeks to assist and support Bappenas with the coordination and regularization of the country's emissions reporting framework which currently lacks coherence and consists of many different and confusing reporting platforms. Firms from the energy, cement, foods, and pulp and paper

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sectors were also recruited through IBCSD networks. Private sector participants in PaSTI are motivated by the fact that the current domestic regulatory framework is not sufficient or consistent with the needs of firms facing global market pressures for carbon disclosure. WRI, on the other hand, use this as an opportunity to promote the adoption of Science-based Targets in the private sector. While the project is still in its infancy, WRI have reported that global voluntary standards (including industry standards, in addition to those already mentioned) have been used to guide the development of "best practices" for domestic emissions reporting (Interview 3). While it remains to be seen if this could result in a significant adoption of Science-based Targets among Indonesian firms, it is clear that the development of state capacities in climate governance is being driven by market rather than societal needs.

As Indonesian firms scamper to mobilize voluntary sustainability standards in order to access the European common market, the EU's "ban" on Indonesian palm oil has been a spanner in the works. The Indonesian government responded by filing a trade dispute with the WTO, with senior government ministers threatening to pull Indonesia out of the Paris Agreement (Munthe and Nangoy 2019). Correspondingly, this has placed the EU and the World Bank, a long-term funder of palm oil as a development crop in the country, on a collision course (Dewi et al. 2018). Whether or not the EU "ban" and its ensuing conflict will serve as a wakeup call for agribusinesses and the Indonesian government to clean up their act and improve the quality of reporting is debatable. Clearer and more substantive standards, whether mandatory or voluntary, are certainly required to address issues of deforestations, land clearing methods, labor standards, and community engagement. The Indonesian government's own sustainable palm oil standards are so piecemeal that they even lag behind industry, particularly RSPO, standards, which have not particularly convinced EU policymakers either. Furthermore, it is also debatable whether palm oil can be produced "sustainably," with critical scholars pointing out that violence towards the environment, workers, and communities are built into the plantation system, and cannot be redeemed through regulation (Li 2018).

Singapore: State-capitalism and party-state dominance

Singapore has the second highest emissions per capita in Southeast Asia, only behind Brunei, and ranks 27th in the world on this count, ahead of the UK, China, and France. Its emissions are dominated by the energy and industry sectors with industries alone contributing towards 60% of all emissions. Singapore presents its own emissions profile to the UNFCCC quite differently – 38% from energy production and transformation, 4% from industrial processes, 40% from fuel combustion from industry, 2% from fugitives, 14% from transport, 0.4% from waste, and 0.1% each for buildings and land-use-change. After several years of focusing on emission intensity, Singapore revised its NDCs in 2020 to finally commit to reducing absolute

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emissions with the intention of peaking emissions by 2030 and halving them by 2050 based on 2014 levels (Mohan 2020). Despite this being a notable improvement from past NDCs, many climate watchdogs including the Climate Action Tracker, consider these highly insufficient and lacking in ambition (Climate Action Tracker 2020). Furthermore, the improved revised targets are still not within the "fair share" range and are not compatible with holding warming to 2°C , let alone the 1.5°C standard of the Paris Agreement (ibid).

The case of Singapore provides the ideal comparison for the Indonesia case because the former is everything the latter is not. Singapore has exceptional state capacity with few, if any, efficacy issues in implementation. Unlike Indonesia, Singapore has no powerful domestic capitalist class that could obstruct climate policy. While a regional first-mover in many aspects of climate mitigation, adaptation and financial innovation, it has not demonstrated regional leadership. Its governance outcomes are as disappointing as Indonesia's – low climate ambition, continued reliance on fossil fuels, and silence on its largest emitters. As this account demonstrates, the Singapore state's high technical capacities are harnessed to deliver highly debatable policy solutions that are in line with the political-economic interests of state capitalism and its ruling elite.

Institutional arrangements of climate governance in Singapore are highly coherent and demonstrate that the problem is an utmost priority for the government. The National Climate Change Secretariat (NCCS), formed in 2010, comes under the Prime Minister's Office (PMO) and headed directly by the Prime Minister, and advises the cabinet on strategy priorities. The Inter-Ministerial Committee on Climate Change (IMCCC), chaired by the coordinating minister for national security, ensures whole-of-government coordination on climate change policies. The IMCCC Executive is chaired by the country's top civil servant and oversees three working groups on long-term emissions mitigation, international negotiations, and resilience. Each working group is headed by the top civil servants in the relevant ministries. The government's climate change strategy is clear and four-pronged – (i) mitigation, (ii) adaptation, (iii) exploiting economic opportunities arising from climate change, and (iv) public awareness. The first three strategies will be covered in this section, while the fourth will be examined in section 5.6 of this report.

Despite institutional arrangements par excellence, the government's mitigation plans have lacked ambition and contain key gaps. Singapore's mitigation plan largely revolves around policies and initiatives that encourage energy efficiency, the adoption of renewables and green technology within the physical confines of the island-state, and a carbon tax introduced in 2019. The carbon tax has been roundly criticized for its extremely low price of S$5 (US$3.70) per ton, below that of already low rates in Switzerland, Portugal (both US$8 per ton), Beijing

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(US$9), and Shenzen (US$7). The High-Level Commission on Carbon Prices, in 2017, recommended a price of between US$40 to US$80 per ton to meet Paris Agreement targets by 2020 (Carbon Pricing Leadership Coalition 2017). The government had initially planned for a carbon tax of S$10-S$20 a ton but had to scale back after protests from business groups (UNFCCC 2017; Mock 2019). On a more positive note, the revised NDC targets in 2020 were accompanied by the announcement that all fossil fuel cars will be phased out in 20 years.[12] Furthermore, there is some indication that the liberalization of the domestic energy market could potentially lead to a greater share of renewable energy sources (Mock 2019). This, unfortunately, has not yet been accompanied by a concerted effort to tap into renewable sources in the ASEAN region through the functioning but limited APG.

A key gap in Singapore's mitigation strategy is the policy silence on the petrochemical industry in the country and its continued reliance on natural gas for energy needs (currently 96%). The petrochemical industry, dominated by the major fossil fuel corporations, account for 75% of all industrial emissions and close to 45% of total emissions, making it, by far, the single largest contributor to GHG emissions in the country (Tan 2019). Not only has the government done little to curb emissions in this sector but have actively supported the expansion of the industry. The chair of the IMCCC himself inaugurated expansions to Total and ExxonMobil in December 2019 and March 2020 respectively (Prime Minister's Office Singapore 2019; Ng 2020). The government sees little contradiction between this expansion and its own climate strategy – natural gas is seen as a global transition fuel in the move away from other more carbon-intensive fossil fuels and the government wants to entrench the country's eminence as an LNG trading hub (Prime Minister's Office Singapore 2019; Interview 5).

Oil majors are seen as developmental partners by the government as the former ploughed in significant investment into the country from the 1970s and was instrumental to industrial and economic growth (Ng 2012). This developmental partnership has fostered a "deep sense of reciprocity and goodwill" from political elites towards these corporations (Interview 6). In the present, the economic salience of the petrochemical industry has only strengthened, particularly in the context of falling non-oil exports and the city-state's transition to a global financial hub (S.-A. Tan 2020; Trading Economics 2020). The latter transition has replaced high-wage manufacturing jobs with low-wage service sectors one resulting in the exacerbation of income and wealth inequalities as well as simmering social tensions that have undermined the ruling party's electoral performance in the 2011 and 2020 polls. In this context, the continued presence and expansion of oil and gas in the country is politically beneficial – the

[12] Electric cars run on lithium or cobalt batteries, a proliferation of which will lead to more intensive mining of these rare metals in developing countries which, in turn, have negative social and environmental impacts.

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industry provides over 25,000 high-wage jobs that cannot be lost without political consequences for the ruling party. While social welfare provisions have expanded considerably (including wage-subsidies for low-income Singaporeans) since the ruling-Peoples Action Party's electoral setback in 2011, the party has yet to develop a more comprehensive plan in tackling long-term structural employment. This means that, on the climate mitigation front, the government's policy options are limited to finding innovative ways to cut non-industrial emissions. On a more positive note, Singapore's minister for Trade and Industry has indicated that a fossil fuel-free future is not beyond the policy horizon, but predictably, tied to how quickly oil majors make this particular transition (Kok 2020).

While a regional first-mover in terms of developing innovative technology for climate adaptation, Singapore's ruling elites have shown little appetite for regional leadership. In fact, adaptation plans in Singapore have directly contributed towards environmental degradation in the region. Singapore's adaptation plans are almost exclusively hard-engineering solutions such as building polders/dykes, sea walls and land reclamation to protect the island-state from rising sea levels (D. Tan 2020). Such projects inevitably generate a high demand for sand that is often sourced from neighboring ASEAN countries. This, in turns, creates considerable ecological damage in countries such as Malaysia, Indonesia, Cambodia, and Myanmar as sand mining is either not properly regulated or under the control of shady local sand syndicates (Global Witness 2010). Almost all ASEAN states have subsequently banned sand exports to Singapore, with Myanmar the only exception but experiencing similar problems (Moon et. al. 2020). In response, the Singapore government has initiated plans to pioneer synthesized sand made from compressed incineration ash (Goh 2019). More recently, however, the government began purchasing sand from Geraldton, Western Australia (Mann 2020) – possibly a somewhat happier solution given that the Western Australian economy is already heavily-geared towards mining and no environmental concerns have surfaced at time of writing.

The party-state's climate strategy has seen a proliferation of green finance in the stock exchange of Singapore (SGX). Since 2017, the country's central bank, the Monetary Authority of Singapore (MAS), provides financial grants to SGX-listed companies issuing green or sustainability bonds in any currency in Singapore (Ferris and Mok 2019). As of August 2020, there are 15 active green or sustainability bonds listed on the SGX with only 4 recipients of the grant scheme. A quick survey of these 15 reveals considerable diversity – from green buildings and solar investments to a belt and road project. There is also considerable diversity within these bonds as to the level and nature of their certification, independent verification, and type of reporting. These, of course, may be broader issues facing green and sustainability bonds globally. The four green bond grant recipients appear to have third-party audits while the rest appear to be hidden behind opaque standards and processes as SGX has not made

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reporting mandatory. Consequently, and similar to the Indonesia case, there appears to be a selective leveraging on an array of different voluntary global standards, particularly those with broad scope. The lack of clarity and consistency in standards for green finance and sustainability reporting has, nonetheless, been pointed out and criticized even from within the political establishment (Young PAP 2020; Interview 5). Furthermore, about a third of these bonds are, in effect, efforts to refinance ongoing or completed projects, including those for completed building retrofitting for energy efficiency. This draws further doubts on the actual climate impact of green bonds as they appear to be yet another form of financial innovation geared towards "making money from money", above all else.

These initial outcomes are hardly surprising given that these initiatives are driven by the ruling elites' desire to entrench Singapore's eminent position as a global financial hub by making the SGX the go-to place for green bonds and investments particularly within Asia. Similarly, Singapore's GLCs have been quick to respond to global market trends for rewarding climate transparency. Temasek Holdings, the largest GLC and helmed by the Prime Minister's wife, have begun to "green up" their investment portfolios by halving emissions by 2030 and committing to full carbon disclosure (Ming 2019). Temasek opted out of the IPO of Saudi Aramco for the same reason (The Strait Times 2019a). The state-owned Development Bank of Singapore (DBS) and British subsidiary Standard Chartered Singapore have announced plans to cease new investments in coal plants and expansions, although they continue to retain investments in existing projects (The Strait Times 2019b; Hicks 2018).

The eschewing of regional climate leadership for global market leadership finds deeper roots in the increasing transnationalization and internationalization of state capitalism. Formed between the late-1970s and 1980s, GLCs were one of the following: (i) partnerships with multinationals; (ii) spin-offs from defense industries; and (iii) privatized state monopolies and public utilities (Al-Fadhat 2020, p. 187). Since the late-1980s, the transnationalization of GLCs through opening up new spaces of capital accumulation in the ASEAN region and beyond, were instrumental in compensating for domestic wage-growth and Singapore's declining competitiveness in low-value-added manufacturing (ibid, p. 188). The ruling PAP has reaped significant domestic political benefits from such transnationalizing with GLCs effectively "insuring" the country against financial crises and subsequent structural adjustment policies brought on by multilateral institutions (Chua 2017). Within the context of deindustrialization and rising social inequalities, GLC revenues contribute directly to government welfare spending, effectively subsidizing the wages of low-income Singaporeans without the government having to raise taxes (ibid, pp. 514-516). As global market trends push transnationalized GLCs towards greater climate transparency, market-based initiatives coming out of Singapore are only skin-deep fixes for safeguarding returns on investments and

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access to investment markets. Nevertheless, it is worth keeping an eye on GLC-efforts to reduce emissions within their investment portfolios and the extent to which this will have a positive knock-on effect for developing ASEAN states where many of their industrial investments are situated.

4.4. Challenges to multilevel climate governance

Taken together, the Indonesia and Singapore cases demonstrate formidable challenges to multilevel climate governance. Following the failure of Copenhagen, the road to Paris saw climate leaders, such as the EU, actively addressing the concerns of “laggards”. The Paris Agreement was catalytic in that it produced more constructive engagement between leaders and “laggards”. Moving beyond interstate negotiations, however, we see that ASEAN and its member states do not have substantive or progressive climate policies. The dynamics of climate politics within the ASEAN region reveals distributional conflicts within countries rather than problems of “collective action” between states (see: Aklin and Mildenberger 2018). The problem with AMS is not that they are “free riders”. Rather we see that politically influential groups, we highlighted Indonesian oligarchs and Singaporean ruling-party elites, have vested material interests in the retention and expansion of carbon-intensive industries. The increasing transnationalization of these groups, and their subjection to global market trends, has led to a proliferation of market-based solutions of carbon disclosure around an array of private voluntary standards. While private metagovernance norms are often seen for their importance in delivering guidance for industries in areas where public policy fails to deliver, the Indonesia and Singapore cases demonstrate that they are being selectively mobilized to “fix” problems to market access and investment protection rather than contributing towards decarbonization.

This does not preclude more positive change. As the EU ban on Indonesian palm oil indicates, considerable steps still need to be taken for both conglomerates and government to “fix” market access problems. The broad array of voluntary codes will most likely inform the development of domestic mandatory codes for palm oil and other commodities, and certainly in dialogue with EU policymakers. This is potentially where the EU can intervene to provide positive metagovernance guidance. The UK Climate Change Unit has an office at the British Embassy in Jakarta, with the mission of helping Indonesia achieve its climate targets through sustainable land use and production, among other initiatives (UK Government, n.d.). This provides an opportunity for global policy entrepreneurs to press for more coherent and substantive standards around palm oil, should EU policymakers believe it is reformable. Yet, the one true positive to emerge is that existing governance arrangements in the region do not go uncontested. As we will demonstrate in section 5.6, while the ASEAN region lacks strong independent climate bodies, there has been an informal grassroots-based regime that

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contests sectoral policies, monitors government and private sector actions, and forwards more progressive policy alternatives. The NGOs and activists that make up this informal regime invariably come up against formidable power asymmetries. But it is these very groups that need to be supported and empowered in order for more substantive and progressive policy solutions to be on the agenda.

5. The Diffusion of Climate Laws and Independent Climate Advisory Bodies

Key Insights

- In order to achieve the goals of the Paris Agreement, global carbon emissions must essentially reach net-zero around mid-century. However, in the absence of globally enshrined emissions reduction targets, the responsibility to decide the way forward rests squarely with state parties. In this context, it is significant that a growing number of states –including almost half of all EU member states and the EU itself – are putting ambitious decarbonization commitments into law, along with overarching governance frameworks to facilitate implementation and monitor progress.
- This section traces the emergence and diffusion of national climate framework laws and independent climate advisory bodies (ICABs), also offering reflections on their potential to drive ambitious, consistent, and long-term climate action. We show how a convergence of the *problem*, *politics*, and *policy* streams in the mid-2000s, allowed the concept to emerge in the UK and how a coalition of dedicated policy entrepreneurs enabled the subsequent diffusion of climate laws in Europe and beyond, despite significant structural obstacles; a trend that has been further accelerated by the adoption of the Paris Agreement.
- Well-designed climate laws matter because they chart a clear pathway towards decarbonisation, ensuring that climate targets do not drop off the policy agenda, even in the face of urgent crises such as the COVID-19 pandemic. They provide a link between international commitments and national policymaking, preventing MLG structures from becoming too fragmented and signaling to non-state actors that governments are serious about pursuing long-term, structural change. The majority of existing climate laws formally establish dedicated expert bodies (ICABs) that support implementation through scientific advice and regular progress monitoring. However, ICABs differ significantly in terms of their mandate, composition, and

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powers, with many governments reluctant to enable them to play an effective watchdog role.

- Although the trend towards climate laws and ICABs has spread beyond Europe, it has not (yet) reached the ASEAN region. There are few opportunities to hold governments to account, due to historically weak civil society and state institutions that are skewed towards the interests of powerful politico-business elites. Yet, recent developments have seen the emergence of novel grassroots groups that may be best placed to promote greater transparency in the climate space.

5.1. Introduction: An Intriguing Case Study of Policy Diffusion

A growing number of countries, regions, and cities around the world have adopted long-term targets to end, or significantly reduce, their contribution to global warming within the coming decades. Significantly, many have chosen to enshrine these commitments into law, creating a binding pathway for decarbonizing their economies. Within the EU, almost half of all member states have adopted a national climate law or are planning to do so in the immediate future (Duwe et al. 2020). As explored in section 3, the EU itself has recently proposed a climate law to lock in its commitment to became climate neutral by 2050. However, researchers have little systematic understanding of the drivers behind the ongoing diffusion of climate laws and their wider potential to strengthen climate governance.

Addressing this deficit, this section examines how the climate law concept came into being, how it first came to be adopted in the UK, and why a growing number of countries have decided to follow the UK's example. Climate laws offer an interesting case study of policy diffusion. The trend towards legalization has not been driven top-down by supranational bodies, such as the UNFCCC or the EU. Rather, the diffusion of national climate laws speaks to the importance of learning and emulation – and the critical role of civil society organizations as policy entrepreneurs. This section also explores under which conditions we can expect climate laws to be effective. We argue that countries are more likely to stick to their long-term commitments if clear legal provisions are supplemented by strong institutional frameworks. More specifically, we focus on the role of independent climate advisory bodies (ICABs), mandated to facilitate the implementation of climate laws by providing non-partisan scientific advice.

Climate laws and ICABs are promising new governance tools. If designed well, they can resolve a long-standing problem in climate governance, namely, how to align short-term action with long-term objectives in a manner that allows for expert input as well as democratic control.

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By charting a clear, legally pathway towards decarbonization, climate laws ensure that decarbonization targets do not drop off the policy agenda and refocus attention on the need for deep structural change and continuous planning rather than ad-hoc, incremental action. ICABs can play a vital role in this process by enabling policymakers to take informed, science-based decisions and monitoring progress made towards meeting long-term targets, thus enhancing credibility, transparency, and accountability of climate action.

5.2. Why Climate Laws?

What are national climate laws and why is their diffusion of interest to both researchers and policymakers? Although the global climate governance regime is characterized by intricate multilevel dynamics, states are still the dominant players. The 2015 Paris Agreement has reaffirmed the importance of national sovereignty in climate policymaking by providing states with the flexibility to draft their own plans for reducing GHG emissions, subject only to an explicitly "soft" compliance regime (Interview 7). This non-intrusive global regulatory approach has led to increased scholarly interest in non-state climate experimentation (e.g. Betsill et al. 2015, Chan et al. 2015, Hale 2016; Bäckstrand et al. 2017). However, as Jordan and Huitema (2014, p. 716) warn, "[i]n the rush to study new forms of governing 'beyond', 'below', and 'outside' the state-dominated climate regime, analysts and practitioners risk neglecting the continuing importance of policymaking activities at the national level." In this context, the willingness of some states to self-impose binding and ambitious mitigation targets deserves attention.

Climate laws are a relatively recent phenomenon and there is no generally accepted definition or terminology. For our purposes, climate laws create a binding overarching governance framework to achieve long-term climate goals (Duwe et al. 2020). They usually enshrine a quantitative mitigation target, such as a commitment to reduce emissions to net-zero by 2050. Climate laws may also establish interim targets, sector-specific targets, or a rolling system of carbon budgets, as well as targets related to energy efficiency or the national energy mix. In addition, climate laws assign responsibilities for implementation and spell out key processes and institutional arrangements for planning, stakeholder consultation, progress monitoring, and review. Most envisage the establishment of an ICAB to provide independent scientific advice and regular progress assessments, although – as this section will demonstrate – not all ICABs are created equal and some lack the mandate, independence, or resources to fulfil an effective "watchdog" function (Rüdinger et al. 2018, p. 14).

As explored below, the concept of a national climate law first emerged in the UK, culminating in the adoption of the 2008 Climate Change Act (CCA). Building on the CCA model, a growing number of EU countries have adopted climate laws, albeit of greatly varying strengths. These

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include Austria (2011), Bulgaria and Denmark (2014), Finland, France, Malta, and Ireland (all 2015), Sweden (2017), Germany, and the Netherlands (both 2019), with legislation being currently prepared or considered in Croatia, Belgium, Latvia, Luxembourg, Slovenia, Spain, and Portugal (Duwe et al. 2020). Curiously, the diffusion of climate laws has not yet garnered much attention in the research community (for exceptions, see Torney 2019b; Nash and Steurer 2019). Similarly, beyond explorative, policy-oriented publications (e.g. Duwe et al. 2020; Rüdinger et al. 2018; Averchenkova 2019; Weaver, Lötjönen and Ollikainen 2019) little attention has been paid to ICAB design features and, crucially, key determinants of success.

Climate laws matter not only because they clarify national governance structures and integrate mitigation concerns across government but, crucially, because they transpose political commitments into legal obligations, facilitating continuous climate action beyond the electoral cycle. In contrast to climate strategies or policy frameworks, climate laws are "more difficult to ignore, weaken, or abolish" (Nash and Steurer 2019, p. 1060). As such, climate laws also have an important signaling function to businesses, investors, and other external actors. They indicate that governments are serious about emissions reductions and committed to pursue long-term, structural change rather than ad-hoc symbolic action (Duwe et al. 2020).

5.3. Origins of the Climate Law Model: The UK Climate Change Act

The 2008 UK Climate Change Act (CCA) was the first national-level law to enshrine a binding, ambitious and long-term emissions reductions target and it is still considered "a particularly innovative piece of climate legislation" (Fankhauser, Averchenkova, and Finnegan 2018, p. 7). Its most important features include: (1) a unilateral target to reduce all GHG emissions to net zero by 2050[13], (2) a rolling system of carbon budgeting which caps emissions over 5-yearly intervals, and (3) a powerful, independent advisory body – the Committee on Climate Change (CCC) – which plays a key role in setting the carbon budgets and monitoring progress towards achieving them. What explains the adoption of such ambitious legislation, which marked a significant departure from previous UK policy making in this field? Below, we use Kingdon's multiple streams model to highlight the key developments that led to the adoption of the CCA, building on expert interviews as well as previous scholarly and policy-focused contributions (Rutter, Marshall, and Sims 2012; Carter and Jacobs 2014; Lorenzoni and Benson 2014; Carter and Childs 2018; Muinzer 2019).

- **The problem stream:** As briefly explored in section 3, the mid-2000s saw important changes in terms of how the problem of global warming was perceived and discussed. Advancements in scientific knowledge as well as several "focusing events" (Kingdon 1984)

[13] The net-zero target was introduced in 2019 through an amendment to the CCA. The original law set a statutory target of reducing emissions by at least 80% relative to 1990 levels.

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elevated climate change to an urgent, high-profile political issue. In the UK, an early focusing event was Tony Blair's speech to business leaders in September 2004, in which the prime minister identified climate change as one of the greatest threats facing the UK and the international community, "a challenge so far-reaching in its impact and irreversible in its destructive power, that it alters radically human existence" (Blair 2004). Blair's decision to make climate change one of the top priorities of the July 2005 G8 summit at Gleneagles also called attention to the urgency of the problem – and the opportunities it offered in terms of strengthening the UK's global leadership. Public and media interest in climate change was further catalyzed in 2006 by the release of Al Gore's book and documentary film *An Inconvenient Truth* and, a few months later, by the publication of the UK government-commissioned *Stern Review*. The latter marked an important turning point in the discourse, both in the UK and globally, because it highlighted the enormous economic costs of inaction (Carter and Jacobs 2014). The growing salience of the problem between 2004 and 2006 was reflected in public opinion polls, which saw a steep rise in the number of respondents viewing climate change as the most serious problem facing the UK (Rutter, Marshall, and Sims 2012) as well as the increased coverage of the issue in the UK press (Boykoff 2007).

- **The policy stream:** With greater recognition of the scale and scope of the climate change problem, it became increasingly obvious that the UK's current mitigation efforts were falling short. While UK emission levels had fallen throughout the 1990, this had largely been a result of the "dash for gas" rather than a reflection of effective climate policymaking (Bowen and Rydge 2011). The UK's first Climate Change Programme (CCP), launched in 2000, lacked consistency and it was soon clear that it would not deliver on the government's self-imposed target of cutting emissions by 20% by 2010 (Wintour 2004). A review of the CCP, completed in 2006, failed to produce innovative policy proposals and was widely met with disappointment (Darkin 2006). Effective policy making was also stymied by interdepartmental conflict. While nominally leading on the issue, the Department of Environment, Food and Rural Affairs (Defra) shared responsibility for formulating climate policies with other government departments, most notably the Treasury and the Department of Trade and Industry (DTI), both of which "shared the belief that emissions reductions were best achieved by carbon pricing through the EU ETS, with otherwise minimal government intervention" (Carter and Jacobs 2014). It was against this background that Friends of the Earth (FoE) developed a novel policy solution – a climate change bill that would commit the UK government to cut emissions by 3% annually, thus guaranteeing a continuous downward trajectory of emissions and a reduction of at least 80% by 2050 (FoE n.d.). The concept was principally developed by then FoE climate

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campaigner Bryony Worthington, who would later be brought into Defra by David Miliband to help draft the bill. Worthington believed that, to be effective, the focus of national climate action had to shift from distant emissions reduction targets and one-off interventions towards consistent, long-term reduction *pathways* (Rutter, Marshall, and Sims 2012). This policy solution was "simple but radical" (Carter and Childs 2018, p. 1007). Not only did it reflect a more interventionist approach than previous policies, it would effectively take away the discretion of the government to delay climate action, even temporarily (Interview 8).

- **The politics stream:** In May 2005, FoE launched the "Big Ask" campaign to call for a new climate law. With support from high-profile celebrities, the campaign involved sustained local lobbying, media engagement, public meetings, and events, as well as – crucially – direct consultation with policymakers (Carter and Childs 2018; Muinzer 2019). Further civil society support for a climate change bill came from the Stop Climate Chaos coalition, formed in September 2005 and bringing together more than a hundred NGOs, including FoE (Rutter, Marshall, and Sims 2012). At this point, the UK business community, too, had begun to organize to demand stronger climate action and long-term regulatory certainty (Bennett 2009). Against this background, a growing number of politicians seized on climate change as a key issue. As mentioned above, Tony Blair had advocated for concerted international action since 2004, however, the Labour government's domestic record on climate change mitigation was rather "unimpressive" (Carter 2008, p. 194). This was in part because Labour had not faced serious competition on this issue. This changed with the election of David Cameron as leader of the Conservative Party in December 2005. Cameron was keen to "green" the image of the Conservatives, having identified the environment as a key issue to appeal to young people and gain support from centrist voters (Interview 8). In September 2006, Cameron publicly endorsed FoE's call for a climate change bill and, on the same day, the Liberal Democrat's environment spokesperson, Chris Huhne, also declared his support (Rutter, Marshall, and Sims 2012). Shortly after, Cameron increased the pressure on the government by publishing a model bill (Mulholland 2006). With more than half of all MPs now backing the introduction of new legislation, the newly appointed Environment Secretary David Miliband concluded that the government had to follow suit and, a few weeks later, he announced the introduction of a climate change bill (Carter and Childs 2018).

Thus, by the end of 2006, a "competitive consensus" had emerged (Carter and Jacobs 2014, p. 137), with all major parties supporting the introduction of a new climate law, although it would take another two years before the final CCA was adopted. The convergence of developments in the problem, policy and politics stream opened a window of opportunity that

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could be exploited by policy entrepreneurs both inside and outside the policymaking arena. As Carter and Childs (2018) argue, the Big Ask campaign provides a compelling example of how environmental NGOs can successfully engage in policy entrepreneurship. Although the campaign was very much a collective effort, it was enabled by "a lucky coming together" of key individuals – Tony Juniper, Bryony Worthington, and others – at FoE senior level at that time (Interview 2). However, as Carter and Jacobs (2014) demonstrate, policy entrepreneurs within government and opposition – Cameron, Blair, David and Ed Miliband, and others – also played a key role in "coupling" the three streams. This, they find, contributed to an unusually long window of opportunity that stayed open throughout the process of finalizing the CCA and beyond. External developments also played an important role. As discussed in section 3, the EU adopted its first climate and energy package in 2008, putting pressure on member states to step up mitigation efforts in light of the upcoming negotiations in Copenhagen. Thus, in some respects, "the CCA was the UK's national contribution to that big EU effort prior to Copenhagen" (Interview 2).

Importantly, FoE continued its Big Ask campaign after the government had committed to a bill and key policy entrepreneurs in Westminster also kept up the pressure to ensure a robust legislative outcome. In the process, the bill was strengthened considerably. While the original focus on annual targets was seen as too restrictive, five-yearly carbon budgets were introduced, with an independent advisory body (the CCC) ensuring that these budgets would be science-based and compliance monitored. Crucially, the final Act included an ambitious long-term target. The initial government proposal had set a 2050 target of cutting emissions by 60%, excluding those from international aviation and shipping. However, upon advice from the CCC, which was already operating in a shadow form, the target was revised to 80%, including aviation and shipping (Carter and Childs 2018). Reflecting a remarkable cross-party consensus, the House of Commons passed the bill with an overwhelming majority in October 2008, with just three MPs voting against it (Rutter, Marshall and Sims 2012).

As Lorenzoni and Benson (2014, p. 16) note, a weakness of the multiple streams model is "its masking of complexity." While the convergence of the three streams wedged open a window of opportunity, policy entrepreneurs faced significant obstacles when trying to take advantage of these circumstances. When FoE initially sought support for the idea, other NGOs were skeptical (Carter and Childs 2018). Realizing the Big Ask campaign was a huge effort, with FoE pulling resources from many of its other activities (Rutter, Marshall, and Sims 2012). There were also potential policy obstructers. Significant pushback against the idea of a strong climate law was coming from the treasury, which opposed such a "unilateralist" legal commitment, largely because it would constrain its own power to make ad-hoc decisions.

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Gordon Brown, who succeeded Tony Blair as Prime Minister in 2007, initially sided with this view (Interview 8).

As the next section will show, policy entrepreneurs faced even greater difficulties when trying to advocate for climate laws in other countries and on the European level. This was, in part, because dynamics in the problem stream changed significantly after the financial and economic crisis but also because policy entrepreneurs faced different political contexts and contextual constraints.

5.4. The Diffusion of Climate Laws in the EU

In many ways, the emergence of the CCA presents a case of genuine policy innovation (Interview 2).[14] Although implementation of the Act has not been without significant challenges (Lockwood 2013), more than a decade after its adoption, it remains "a central pillar of climate governance in the UK" (Averchenkova, Fankhauser, and Finnegan 2018, p. 5). Beyond the UK, the CCA has inspired the adoption of climate laws in a growing number of countries, especially in Europe, where climate laws are arguably becoming "the default choice" for climate governance frameworks (Duwe et al. 2020. p. 4). Some of the ideas originally developed in the CCA – a long-term, science-based goal, and a process of five-yearly reviews – are even reflected in the 2015 Paris Agreement (Interview 2).

We suggest that the ongoing spread of climate laws can best be understood by combining insights from the well-established literatures on policy diffusion and policy transfer. Both are interested in how policy outcomes in one country influence policy decisions taken in another through mechanisms such as learning, competition, coercion, and emulation (Shipan and Volden 2008). However, while they share a conceptual basis, the literature on policy diffusion tends to focus on structural drivers and broad patterns whereas scholarship on policy transfer emphasizes agency and processes (Marsh and Sharman 2008). While a detailed comparative study of diffusion processes in individual countries is beyond our remit, we use the below section to map out the drivers of (and barriers to) the diffusion of climate laws across Europe and offer some speculative thinking on why we have seen incomplete diffusion.

The fact that climate laws have spread primarily within in Europe speaks to the long-standing insight that policy diffusion is more likely to occur across geographically proximate countries (Solingen 2012). The fact that the diffusion of climate laws has not resulted in full convergence is also consistent with observations from the scholarship, although the literature often pays insufficient attention to why we see variation (Klinger-Vidra and Schleifer 2014). In the case of

[14] "Previous framework laws had been geared mainly towards target achievement over shorter time-frames (e.g., New Zealand (2002), Switzerland (2000))" (Duwe et al. 2020)

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climate laws, a key question is why later adopters have, on the whole, opted to weaken the original model, rather than strengthening it (Torney 2019b).

The role of agency

Some of the policy entrepreneurs that played a critical role in enabling the adoption of the UK CCA, also actively engaged in efforts to transfer the CCA model into different policy settings. Most notably, as other national chapters became increasingly interested in climate laws, FoE decided to roll out the Big Ask campaign across Europe (Carter and Childs 2018). This pan-European effort was officially kicked off in February 2008, with a launch event in Brussels. Prominent support came from Radiohead front man Thom Yorke, who had already served as a key spokesperson for the British climate law campaign. The European-wide Big Ask involved FoE sister groups from 17 countries and called for legally binding year-on-year emission cuts in these countries as well as a strong EU-level compliance system to bolster these commitments (FoE 2008). Mirroring strategies that had proven successful in the UK context, the campaign sought to directly engage with policy makers and legislators while also building grassroot support for climate laws through public events and coalition building with other sectors of civil society.

Once the CCA was adopted, the UK Foreign and Commonwealth Office (FCO) also became interested in cross-pollinating the climate law model as part of its "soft diplomacy" efforts (Interview 8). With David Miliband now heading the FCO, climate change was seen as "a foreign policy priority because of its role in energy security, the potential economic opportunities it offered UK businesses and the scope to use the concept of carbon budgets to engage with overseas finance and economic ministries" (Carter and Childs 2018, p. 1005). An additional motivation to convince other countries to adopt climate laws might have been the desire to level the economic playing field. Beyond one-to-one conversations with policymakers, the FCO teamed up with FoE to deliver a series of seminars on the UK experience with the CCA in capitals across Europe, with the aim of encouraging similar legislative changes. Similar events, jointly run with other civil society organizations, were also staged in Mexico, Vietnam, Taiwan, Thailand, and Indonesia (Carter and Childs 2018). To support these efforts, FoE, the FCO and the recently created Department of Energy and Climate Change (DECC) jointly produced a video that presented the key features of the CCA, supplemented by interviews with policy makers, members of the CCC, business representatives, civil society, and others (FoE 2010).

However, the joint FCO-FoE policy transfer efforts were relatively short lived and FoE's pan-European campaign never "gained a degree of traction equivalent to the substantial effect exerted by the Big Ask in the UK setting" (Muinzer 2019, p. 9). In the aftermath of the financial

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and economic crisis, countries were less receptive to the campaign's message and the changing political climate resulted in deep funding cuts for FoE (Interview 2). In addition, internal pressure was building up at FoE to abandon the overarching focus on climate laws and revive campaigns on other environmental issues and on a more local level (Carter and Childs 2018). Yet, policy transfer activities continued on a less visible level. As Fankhauser, Averchenkova, and Finnegan (2018) note, backbench MPs helped promote the CCA model through international networks such as the Global Legislators Organisation (GLOBE). Business representatives, too, referred to the Act in interactions with their counterparts abroad. These impromptu policy transfer processes speak to the fact that the CCA enjoyed an unusual level of cross-party and societal support in the UK.

Beyond initiatives by individual policy entrepreneurs, philanthropical and research organizations played a key role in seeding the concept of climate laws in Europe. The European Climate Foundation (ECF), in particular, emerged as an "important agent of change" in this space (Interview 7). With a large network of partner organizations and a mission uniquely focused on the need to cut European GHG emissions, ECF was well-placed to take up the issue. Over several years, ECF funded a range of research and policy-focused activities to increase awareness of climate laws and build a knowledge base on what works, in collaboration with organizations such as the Grantham Research Institute on Climate Change and the Environment in London, the Institute for Sustainable Development and International Relations (IDDRI) in Paris, and the Ecologic Institute in Berlin. ECF was also one of the first to push forward the idea of a climate law on the EU level, in the wake of governance regulations.

The EU itself, meanwhile, did not play a role in policy transfer of climate laws. In fact, as one interviewee suggested, the EU may have "more tolerated than encouraged" such national solo efforts as they were seen to disrupt a joint European strategy (Interview 1). This was partly because a long-term perspective, emphasized by climate law proponents, was at odds with the EU's focus on decadal targets. Even after adoption of the Paris Agreement, the EU feared that a focus on 2050 would be too ambitious and weaken the more immediate 2030 commitment (Interview 2). It was only with the appointment of Ursula von der Leyen as President of the European Commission, that the EU changed gear. Indeed, the new Commissions forceful push for a European climate law has been surprising even for many experts working in this area (Interview 7).

Structural conditions

It has been acknowledged that "[t]he development and enactment of the UK CCA benefited from an unusual constellation of supportive factors" (Torney 2019b, p. 1125). Crucially, the

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push for legally binding GHG reduction targets came at an opportune time – when public concern over climate change reached new heights and the adoption of a Kyoto Protocol successor treaty still appeared likely. However, in the aftermath of the financial crisis – which quickly transformed into an economic and sovereign debt crisis – conditions for policy entrepreneurs changed. The crisis had a profound impact on public perceptions and political priorities. In the early crisis years, the notion of green growth still had considerable traction but growing economic insecurity and the turn towards austerity soon led many European countries to weaken or abandon green policies (Geels 2015). Across the EU, opinion polls reflected a substantial decline of the perceived seriousness of climate change as the recession unfolded and unemployment rose (Scruggs and Benegal 2012). In addition, the failure of the 2009 Copenhagen summit to produce a new international climate treaty reduced countries' willingness to commit to binding emission reductions.

Thus, following the adoption of the UK CCA, the window of opportunity to push for ambitious climate laws across Europe quickly narrowed. While it did not fully close, policy entrepreneurs faced significant structural obstacles, which help explain why climate laws were often weakened in the diffusion process. In addition to changing "external" conditions – above all, the economic recession and the lack of a new international framework – policy entrepreneurs encountered a range of country-specific, "internal" hurdles. These included:

- ***Resistance from powerful interest groups:*** It has long been established that "[c]limate policy is particularly prone to the activities of interest groups" (Michaelova 1998, p. 251). In the case of the UK CCA, broad support from the business community made it easier for politicians to commit to stronger climate action (Carter and Jacobs 2014). However, in other countries, businesses played a less progressive role, in particular those with vested interests in the fossil fuel economy. For example, Torney (2019b) finds that business and agricultural lobby groups were instrumental in preventing the inclusion of quantitative emissions reduction targets in the Irish climate law. Similarly, FoE Hungary (2011, p. 4) observed that their efforts to push for a climate change law were essentially "blocked by fossil lobby groups."

- ***Weaker civil society sector:*** Across Europe, "there are still huge differences in the strength and influence of environmental organizations," with NGOs tending to be stronger and better resourced in Western and Northern Europe than in Eastern and Southern Europe (Preisendörfer 2017, p. 220). The UK has a historically strong civil society sector and, at the time of the Big Ask campaign, FoE was uniquely well-connected to key decision-makers, which enabled it to push for a strong climate law

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(Interview 8). This success was difficult to repeat in European countries with a less sophisticated civil society sector (Interview 2).

- ***Lack of "competitive consensus":*** The productive cross-party competition that was key to the adoption of the UK CCA was, in many ways, a product of unique conditions marking an "unusual period of party political consensus" in the UK (Lockwood 2013, p. 1344). These conditions were not mirrored in most other European countries. Although the environment had emerged as a key political issue across Europe by the late 2000s, this rarely led to constructive cross-party competition (Carter 2013) and climate change discussions often remained divided along party political lines, albeit to a much lesser degree than, for example, in the US (McCright, Dunlap, and Marquart-Pyatt 2015). This made it more difficult for policy entrepreneurs to push for ambitious climate laws. In Spain, for instance, FoE campaigners involved in the European Big Ask effort "struggled to avoid the polarization of climate change along a left-right axis" (FoE Scotland). In other countries, climate laws were adopted without support from across the political spectrum, as was the case in Austria, where the weak 2011 Climate Protection Act was opposed by the Greens and other smaller parties (Spiegel 2011).

- ***Different political and legal systems:*** Different political and legal systems, institutions, and traditions made it necessary for climate law policy entrepreneurs to change strategies. For example, while FoE's Big Ask campaign in the UK had successfully focused on mobilizing constituencies to apply pressure on individual MPs, this strategy was difficult to implement in countries with electoral systems organized around party lists (Carter and Childs 2018). In addition, some features of the UK CCC proved challenging to transfer, including the establishment of an independent ICAB with far-reaching powers. While the UK has a long-standing tradition of independent regulators, this is not true for all European countries and lawmakers were often inclined to provide ICABs with relatively weak advisory powers and a degree of stakeholder representation (Interview 2). For example, while the Nordic countries were among the first to adopt the climate law model, they found it difficult to conceive of ICABs as entirely independent bodies, given the historically prominent role of the state in public goods provision in these countries (Interview 8).

If external and internal structural conditions were relatively unconducive to policy diffusion in the years immediately following the adoption of the UK CCA, this started to change in light of the upcoming COP-21 negotiations. The negotiation and eventual adoption of the Paris Agreement put additional pressures on policymakers who "wanted to be seen to be doing something" (Torney 2019b, p. 1138) and the development of national climate laws around the

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world picked up around the same time (Duwe et al. 2020). Within the EU, additional incentives to commit to long-term climate goals and governance frameworks were provided by the 2018 governance regulations (Regulation on the Governance of the Energy Union and Climate Action), which required member states, for the first time, to prepare long-term, integrated climate strategies (Rüdinger et al. 2018; Interview 2). Finally, the benefits of a climate law likely became more obvious over time, with the UK CCA model proving relatively robust compared to, for example, the German *Energiewende*, which was equally ambitious but had not legally enshrined whole-economy climate goals (Interview 2; Interview 8).

Mechanisms of policy diffusion

Scholars have identified four principle ways in which policy innovations spread from one jurisdiction to another, namely coercion, competition, learning and socialization (Graham, Shipan, and Volden 2013). While these mechanisms are often coupled and/or work simultaneously, they follow distinct logics. *Coercion* emphasizes the role of powerful institutions and actors – such as international organizations or hegemonic states – in shaping the incentive structures of others through "the manipulation of economic costs and benefits, and even the monopolization of information or expertise" (Dobbin, Simmons, and Garrett 2007, p. 454). *Competition* similarly focuses on material incentives albeit those set by market forces and the strategic actions of economically competing states. In contrast, *learning* speaks to the ability of states to draw lessons from the experiences of others and select policy instruments that have proven effective elsewhere. Therefore, some have suggested that, from a normative perspective, policy adoption via learning is most likely to lead to desirable, stable outcomes (Shipan and Volden 2008). Finally, constructivists emphasize the importance of *socialization* processes and the role of norms and ideas in shaping policymakers' preferences. While related to learning, socialization is a less "rational" processes, focused more on the "appropriateness" rather than the effectiveness of policies (Gilardi 2012). As we argue below, in the case of national climate laws, we see evidence of both, genuine learning as well as policy copying as a result of socialization, whereas coercion and competition have not (yet) played a major role in the diffusion process.

- ***Coercion:*** Coercive pressures cannot explain the diffusion of national climate laws since their adoption has been neither mandated nor actively encouraged by supranational bodies such as the UNFCCC or the EU. Whilst the UK has sought to promote its own climate law model, these efforts were not tied to any "hard" incentives or conditional rewards. However, the diffusion of climate laws in Europe has picked up in a context of increasing pressure to step up national climate action, with the Paris Agreement emphasizing the need for deep structural change and the EU governance

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regulations mandating long-term climate planning (Duwe et al. 2020). These pressures could increase if and when a European climate law is adopted.

- ***Competition:*** A competitive environment compels governments to keep up with policy development elsewhere in order to attract or retract economic resources. As Vogel (1995) has demonstrated, economic competition does not necessarily result in deregulation and the unilateral raising of environmental standards may even lead to a regulatory "race to the top". Indeed, the UK CCA is frequently framed in terms of new business opportunities, long-term competitiveness and "clean growth" (HM Government 2017). However, with many countries opting for climate laws weaker than the CCA (Nash and Steuer 2019), we do not (yet) see compelling evidence of "race to the top" dynamics.

- ***Learning:*** While the adoption of the UK CCA may not have resulted in fierce regulatory competition, it "was definitely an inspiration to other countries" (Interview 7). This was, at least partly, a result of rational learning processes, with other countries gradually recognizing the advantages of putting in place robust, long-term legal frameworks rather than relying on short-term policy strategies (Interview 2; Interview 8). As shown above, policy entrepreneurs inside and outside of government played an important role in this regard, advocating the merits of climate laws through campaigns, policy-focused seminars and research activities, and direct exchanges facilitated through formal or informal networks.

- ***Socialization:*** In addition to providing opportunities for learning, networks condition the values, interests and identities of their members through socialization processes (Slaughter 2004). With increasing pressure to step up mitigation action and climate laws emerging as a normatively powerful policy option, policymakers may have embraced them for largely symbolic reasons, following a "logic of appropriateness" (Checkel 2005) rather than a process of rational reasoning aimed at identifying the most effective solution. Indeed, both Torney (2019b) and Nash and Steurer (2019) find that at least some of the climate laws adopted in Europe over the past decade are more symbolic than substantial.

What makes a climate law substantial? Observers have highlight a number of factors, including (1) a clear, ambitious and long-term target, (2) planning requirements and procedural mechanisms that facilitate alignment of short-term action with the long-term target, e.g. through interim targets or carbon budgets (3) a clear division of responsibilities and mechanisms for intra-governmental delegation, (4) stakeholder involvement and (5) sound advice, progress monitoring and accountability structures. It is the latter to which we now turn.

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Evidence of incomplete diffusion: ICAB institutional design

Transparency, accountability, and science-based target-setting are key concerns in multilateral and transnational climate politics (Gupta and van Asselt 2019; Widerberg and Pattberg 2016). However, climate policies are ultimately implemented on the national and sub-national level, and it is the domestic sphere that offers the greatest potential for strong accountability relationships (Karlsson-Vinkhuyzen and van Asselt 2015). By formalizing national commitments and assigning clear responsibilities for implementation, climate laws can significantly strengthen democratic accountability structures. Yet, for these structures to be effective, voters, parliamentarians, and other relevant stakeholders must have access to reliable information on the sufficiency of national commitments and governments' implementation efforts. In turn, governments need expert advice to take informed decisions on how to deliver on climate targets. Independent climate advisory bodies (ICAB) can play a vital role in this regard. Although institutionalized expert advice is a long-standing feature in international, European, and national climate politics,[15] the emergence of novel ICABs to facilitate climate law implementation is significant. Their establishment under (or in connection with) a climate law makes these bodies a permanent feature of national policymaking and provides them with a clear and concrete mandate, which usually involves advising on long-term targets and monitoring progress made towards these targets. Robustly designed climate laws require ICABs to publish regular assessments, for example through annual reports, and make it difficult for governments to ignore their input. However, as we explore below, existing ICABs differ significantly in terms of their mandate, composition, and powers.

The UK Committee on Climate Change (CCC) is widely considered a uniquely independent, well-resourced, and powerful ICAB that has inspired the subsequent establishment of advisory bodies in other countries (Interview 7). It plays a key role in preparing the UK's five-yearly carbon budgets which, once approved by parliament, cannot be changed unless made necessary by "significant changes" in circumstances (UK CCA, Section 21.2). The CCC also prepares an annual progress report for parliament, to which the government has a statutory obligation to respond. Beyond these recurring advisory and reporting duties, the CCC may conduct ad-hoc research into specific issues upon request or on its own initiative. While the

[15] On the international level, the IPCC is the leading expert body on climate change. However, the IPCC is an explicitly intergovernmental body that primarily focuses on synthesizing and building consensus on the latest climate research. The main expert body on the European level, the European Environment Agency (EEA), plays an important role in collecting and quality-checking GHG emissions data but it does not have an accountability-focused monitoring function (Schoenefeld and Jordan 2020) and it is not perceived as entirely independent (Interview 2). Meanwhile long-standing independent advisory bodies on the national level (such as the German Advisory Council on the Environment) have a broader remit and are not mandated to evaluate progress made towards climate targets.

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CCC has no formal decision-making or legal enforcement powers, it could serve as a witness in court if environmental groups were to prosecute the government over failure to meet climate targets (Interview 8). Importantly, the CCC is an advisory rather than a stakeholder body. With the exception of the chair, its members are selected based on their expertise and experience in climatology, economics, behavioral science and other relevant disciplines. They are appointed jointly by the UK Secretary of State for Energy and Climate Change and ministers in the devolved administrations, which means that no single party has control over the selection process. These rules on membership and appointment procedures guarantee that the CCC is independent and does not challenge the representative function of parliament (Interview 8). Indeed, observers find that the information the CCC generates is not perceived as partisan and used across the political spectrum (Interview 7).

Within the EU, most countries with climate laws have also chosen to establish a dedicated ICAB. However, while the CCC has served as an influential model, few other ICABs have been vested with comparable powers and resources and the same level of independence (see Table 1 below). In some cases (Austria, Bulgaria, Malta), ICABs have been replaced by de facto stakeholder bodies that include not just experts but also political representatives, public officials, or interest groups. Others (the Netherlands, the EU) have chosen to use existing advisory structures rather than set up a new body dedicated specifically to facilitating climate law implementation. Denmark, Finland, France, Germany, Ireland, and Sweden have all set up ICABs that more closely resemble the UK CCC, with similar bodies planned in Luxembourg, Slovenia, Spain, and Portugal. Yet, in the absence of any meta-standards for ICAB design, even these bodies differ significantly in terms of their composition, thematic remit, responsibilities, and powers.

- **ICAB membership and setup:** The majority of ICABs has been directly established through a national climate law, with the exception of the Swedish Climate Policy Council (which was created by a parallel policy framework) and the French High Council for Climate (which was established by decree to replace a less powerful body that had been created through the climate law). The size of ICABs varies from five (Germany) to fifteen (Finland) members, who usually serve for four- or five-year fixed terms, with the possibility of being reappointed once. They are chosen based on their expertise in climate and environmental science, economics, behavioral science, and other relevant or sector-specific issue areas. A notable exception is the Irish Climate Change Advisory Council, which is not just composed of scientific experts but also includes, ex officio, four high-profile public officials. While this has raised concerns about the Council's independence (Torney 2017), the inclusion of more politically

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versed members may provide ICABs with important insider knowledge and experience (Weaver, Lötjönen, and Ollikainen 2019). For example, the UK CCC, while first-and-foremost an expert body, has profited from having a politically experienced chairman, capable of understanding the parliamentary and government procedures (Interview 8). ICAB members are usually appointed by governments or (in the UK) by different national authorities, sometimes upon nomination by universities and national research institutions (Finland) or following recommendation by incumbent ICAB members (Sweden). The Danish Council on Climate Change stands out as the only ICAB able to self-select new members. All ICABs have access to financial resources and administrative support, however the size of budgets and secretariats varies widely, as does the extent of ICAB independent control over them. For example, while the Finnish Climate Change Panel is the largest ICAB, in terms of expert members, it has one of the smallest secretariats and its annual budget of EUR 300,000 only covers travel costs, media activities, and compensation for project workers (Weaver, Lötjönen, and Ollikainen 2019). In contrast, the UK CCC has an annual budget of around GBP 3.7 million, which it can use independently, and a secretariat of around 30 staff, who provide not just administrative but also analytical support (Averchenkova 2019).

- **ICAB role and powers:** While all ICABs have an advisory function, there are significant differences in terms of the scope of their work and, crucially, the extent to which governments must respond to their advice. Most ICABs (except for those in Finland and Germany) are explicitly mandated to evaluate and annually report on government progress towards climate targets. However, only in Denmark, France, and the UK is the government obliged to respond to ICAB progress reports and justify gaps identified. The German Expert Council is mandated to verify data on annual GHG emissions as well as the assumptions underpinning new suggested mitigation measures. While this “could provide an important check against overstated emission reductions potentials” (Duwe et al. 2020, p. 33), it narrows the role of the Council to focus on fact-checking rather than progress monitoring. Other ICABs are constrained by weaknesses in the overall climate law. For example, because the current Irish climate law does not fix quantitative targets, the watchdog function of the Irish Advisory Council is necessarily limited. Conversely, the five-yearly carbon budget approach enshrined in the French and UK climate laws enables their ICABs to play an influential role in charting the pathway towards long-term climate goals. While some ICABs explicitly cover adaptation in addition to mitigation (France, Ireland, UK), others explicitly exclude adaptation from their remit (Denmark). The Irish and UK ICABs have both established dedicated adaptation sub-committee. Importantly, many ICABs may

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independently conduct or commission research on issues they consider relevant, enabling them to alert governments and/or the general public to new emerging challenges or opportunities. Most ICABs are also encouraged to contribute to public debate on climate change, including though engagement with non-member stakeholders. In the case of the Danish Council on Climate Change, engagement of relevant parties (e.g. trade unions, companies, NGOs, municipalities and regions) is even mandated by legislation.

As Duwe et al. (2020, p. 33) note, ultimately "an expert advisory council is only as relevant as the degree to which its recommendations and concerns are actively considered by the government or governmental ministry it serves, as well as the strength and independence of its mandate." While ICABs are promising new governance tools, many governments appear reluctant to provide them with powers and resources that would enable them to serve a critical watchdog function. Only in Denmark, France, and the UK must governments respond to ICAB input. Although the growing urgency of decisive climate action has prompted some countries (namely Denmark and France) to strengthen ICABs, others appear increasingly reluctant to put in place independent accountability mechanisms. Notably, the proposed European climate law does not foresee the creation of a novel ICAB, a decision that some observers identify as its "single greatest weakness" (Interview 2).[16] It remains to be seen whether this could still change, given that the European Parliament has recently called for the establishment of an independent EU Climate Change Council (European Parliament 2020). It is important to clarify that ICABs are designed to support – not challenge – democratic control mechanisms and they do not prescribe specific policies (Interview 8). Even the strongest ICABs rely primarily "on the political embarrassment that [their] assessments may cause and the threat of a judicial review" (Averchenkova, Fankhauser and Finnegan 2018, p. 4).

As ICABs become a more established feature of the climate governance landscape, it is not inconceivable that a set of (in)formal principles may eventually emerge to guide their design. Experiences with similar bodies in other issues areas, such as human rights, could provide guidance in terms of institutional safeguards that may help guarantee ICAB independence and specify their mandate and powers (Linos and Pegram 2017). To a degree, ICABs may carve out a more prominent role for themselves, e.g. through sophisticated communication strategies and engagement with the wider public. Conversely, well-designed ICABs may also

[16] Under the current draft law, the Commission merely has a duty to "consult experts designated by each Member State" before pronouncing on a trajectory towards the long-term target (European Commission 2020b, Article 9.4). There is no clarification on how these experts will be chosen, no provisions on ensuring independence and transparency, and no opportunity for them to hold the Commission or Member States to account.

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have to proactively defend the independence they have been granted by resisting attempts to frame their work in partisan terms (Interview 8). In this context, it is significant that European ICABs have started, informally, to network and exchange experiences with each other (Interview 7). However, going forward, much will depend on political will. Somewhat counterintuitively, the rapidly narrowing time window for decarbonization might reduce political will to strengthen climate laws and ICABs in the absence of substantial public and corporate pressure. The establishment of a uniquely strong ICAB in the UK may have been facilitated, in part, by the fact that, back in 2008, the delivery of the most ambitious carbon budgets was still a matter of the future. Today, scientifically sound emission pathways demand drastic and immediate action. As the socio-economic consequences of the transition to a post-carbon economy become more apparent and more contested, policymakers may become more reluctant to put in place robust accountability structures. This could be particularly consequential given the lack of effective accountability mechanisms on the UNFCCC level and the decision not to include an ICAB or similar body in the current version of the draft European climate law.

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Table 1. Climate Laws and ICABs in the EU-27 plus UK

Country	Climate Law	Targets enshrined in law	ICAB
Austria	**Climate Protection Act** (*Klimaschutzgesetz*), established in 2011 and last amended in 2017, with a new law to be finalized by the end of 2020 Full text (in German): https://bit.ly/30MbM7W	The existing law establishes sectoral targets with no long-term element. Current targets cover the period 2013-2020 only and have repeatedly been missed. Austria has recently announced that it seeks to be carbon neutral by 2040 and this target could be enshrined in the new climate law.	The 2011 bill establishes a National Climate Protection Committee (*Nationales Klimaschutzkommittee*, NKK). However, the NKK is de facto a stakeholder/steering body rather than an ICAB. It includes representatives of parliamentary parties, ministries, the provinces, interest groups, environmental organizations and science. It does not have its own budget or website and there is little transparency regarding its role and membership. A separate body, the National Climate Protection Advisory Board, was merged with the NKK in 2017.
Belgium	Discussions on a national climate law are ongoing. However, the law would require a constitutional change, with controversial implications for the division of competences between the federal state and the regions. In March 2019, a proposal to change the constitutions to enable the adoption of a climate law failed to reach the necessary two-thirds majority (Stroobants 2019). Like all EU countries, Belgium had to submit an integrated national energy and climate plan (NECP) for the period from 2021 to 2030 to facilitate long-term, whole-economy planning and governance coordination.		
Bulgaria	**Climate Change Mitigation Act** (*Закон за ограничаване изменението на климата*), adopted in 2014 and last amended in 2020 Full text (English translation): https://bit.ly/2Dxq8jO	The bill lays out the institutional framework for coordinating climate action but in does not establish targets beyond those set by the UNFCCC/EU.	The bill establishes a National Expert Council on Climate Change (Националният експертен съвет по изменение на климата). However, the Council is de facto a stakeholder/steering body rather than an ICAB. In includes representatives of relevant ministries public agencies, the National Association of Municipalities, non-profit organizations, and the Bulgarian Academy of Science. It does not have its own budget or website and there is little transparency regarding its role and membership.
Croatia	Croatia does not currently have an overarching framework law that enshrines long-term national climate targets. However, according to Duwe et al. (2020), preparations for a climate law are underway. Like all EU countries, Croatia had to submit a NECP for the period from 2021 to 2030 to facilitate long-term, whole-economy planning and governance coordination.		
Cyprus	Cyprus does not currently have an overarching framework law that enshrines long-term national climate targets. Like all EU countries, Cyprus had to submit a NECP for the period from 2021 to 2030 to facilitate long-term, whole-economy planning and governance coordination.		
Czech Republic	The Czech Republic does not currently have an overarching framework law that enshrines long-term national climate targets. Like all EU countries, the Czech Republic had to submit a NECP for the period from 2021 to 2030 to facilitate long-term, whole-economy planning and governance coordination.		
Denmark	**Climate Act** (*Klimalov*), adopted in 2019, replacing an earlier (2014) climate law which did not enshrine binding targets	Under the 2019 law, Denmark commits to reducing GHG emissions by 70% (compared to 1990 levels) by 2030 and achieve climate neutrality by 2050. The	**Climate Council** (*Klimarådet*) was first established under the 2014 climate law and significantly strengthened through the 2019 Climate Act. Official website: www.klimaraadet.dk

	Full text (in Danish): https://bit.ly/3gPQhZe	Act sets a rolling five-year target, 10 years in advance.	*Membership and setup:* The Council has nine members (including the chair) with broad scientific and sectoral expertise. It is assisted by a relatively large secretariat whose members also bring substantive expertise. The Council self-elects its chair as well as new members, who are appointed for a four-year term, with the possibility of being reappointed once. In 2019, the Council's annual funding was approximately EUR 1.2 million, however, its budget has now been doubled (Danish Government 2019). *Role and powers:* The Council evaluates the status of implementation of national climate objectives and advises on how Denmark can effectively transition to a low-carbon society by 2050. At the start of each year, it reports on whether the government is on track to meet the goals of the Climate Act. The government must respond and take a position on its recommendations. The Council must also contribute to the public debate on climate change, including by engaging with other stakeholders.
Estonia	Estonia does not currently have an overarching framework law that enshrines long-term national climate targets. Like all EU countries, Estonia had to submit a NECP for the period from 2021 to 2030 to facilitate long-term, whole-economy planning and governance coordination.		
Finland	**Climate Change Act** (*Ilmastolaki*), adopted in 2015 (to be revised in 2021) Full text (unofficial English translation): https://bit.ly/2DQN90R	The 2015 Act stipulates that Finland must reduce emissions by at least 80% by 2050 from 1990 levels. However, the revised law is likely to include a much more ambitious target of achieving carbon neutrality by 2035.	**Climate Change Panel** (*Suomen ilmastopaneeli*), officially established through the 2015 law (a body with the same name had been operational since 2012). Official website: https://www.ilmastopaneeli.fi/en/ *Membership and setup:* The panel is made up of fifteen expert members with diverse academic backgrounds. Members are nominated by universities and research institutions and then appointed by the Council of State, based on recommendations made by the Ministry of the Environment. They serve for four-year terms. The Panel has access to a small secretariat and an annual budget of approximately EUR 300,000. *Role and powers:* The Panel publishes formal statements to assess Finnish change policy and progress made. It can choose to conduct research on issues it considers relevant to climate policymaking. The Panel also serves as an advisor to the ministerial working group on energy and climate policy and may receive advisory assignments from other ministries or ministerial working groups.
France	**Energy Transition Green Growth**	The revised law enshrines a 2050 carbon-neutrality target, to be achieved through a more than sixfold reduction	**High Council for Climate** (*Haut Conseil pour le Climat*), created in November 2018 by the President and then by Decree in May 2019 to replace

	Act (*Loi de transition énergétique pour la croissance verte*), adopted in 2015 and last revised in 2019 Full text (in French): https://perma.cc/5XYM-8VDA	of GHG emissions. It also sets an interim target of reducing fossil fuel consumption by 60% (compared to 2012 levels) by 2030. France will work towards these targets through five-year emission budgets to be set up to 10-15 years in advance.	a (less powerful) committee of experts that had been established through the 2015 Energy Transition Law. Official website: https://www.hautconseilclimat.fr/en/ *Membership and setup:* The High Council is made up of thirteen expert members. They are appointed by decree and serve for a five-year term, renewable once. The High Council has access to a secretariat, which provides administrative, IT and communication support as well as an annual budget of about EUR 2 million. *Role and powers:* The High Council produces an annual report on whether France is on track to meet its climate targets. The government must respond to this report within six months, indicating how it will respond to any gaps identified. Every five years, the Council also provides input on new carbon budgets and the revision of France's low carbon strategy. The council may also engage in exploratory analyses of issues it considers relevant and communicate with public and private stakeholders. The French council has an explicitly international orientation, aiming to engage with other ICABs and help the French government put forward ambitious proposals on the EU/international level.
Germany	**Federal Climate Protection Law** (*Bundes-Klimaschutzgesetz*), adopted in 2019 Full text (in English): https://bit.ly/2DXrYdh	The law enshrines a GHG reduction target of 55% by 2030, compared to 1990 levels, with a view to achieving GHG neutrality by 2050. It also specifies that the German governmental administration must be climate neutral by 2030. An annex to the law provides annual sector-specific emission budgets, paving the way towards the 2030 target.	**Council of Experts on Climate Change** (*Expertenrat für Klimafragen*), established through the 2019 Federal Climate Protection Law Not yet operational *Membership and setup:* The Expert Council will be made up of five members, including the chair (who is elected by the Council). All members are appointed by the government and selected for their expertise in climate and environmental sciences, economics, and related social issues, as well as relevant sectoral expertise. They serve for a five-year term and may be reappointed once. The federal government will provide the Council with a secretariat and budget. *Role and powers:* The Expert Council must provide quality checks on Germany's annual emissions data and fact-check the assumptions that underpin ministerial proposals for new GHG reduction measures. It does, however, not have an explicit mandate to assess and report on sufficiency of ambition and progress made towards long-term targets. The Council may provide ad hoc advice on specific issues but only upon request.

Greece	Greece does not currently have an overarching framework law that enshrines long-term national climate targets. Like all EU countries, Greece had to submit a NECP for the period from 2021 to 2030 to facilitate long-term, whole-economy planning and governance coordination.		
Hungary	**Climate Protection Act** (*törvény a klímavédelemről*), adopted in 2020 Full text (in Hungarian): https://bit.ly/31IBfOO	Under the law, Hungary commits to reducing GHG emissions by at least 40% by 2030 (compared to 1990 levels) and achieving climate neutrality by 2050. The law also states that the share of renewable energy sources in gross final energy consumption must be at least 21% by 2030. Energy consumption in 2030 shall not exceed consumption in 2005, unless growth is achieved exclusively through carbon-neutral energy sources.	The law does not establish an ICAB or any other advisory body or accountability mechanism.
Ireland	**Climate Action and Low Carbon Development Act**, adopted in 2015. A revision that would establish a legally binding 2050 target and strengthen the role of the Advisory Council is currently under consideration. Full text: https://bit.ly/33QPpQu Draft amendment bill: https://bit.ly/3iyrKZp	The current bill only includes a qualitative target to "pursue, and achieve, the transition to a low carbon, climate resilient and environmentally sustainable economy by the end of the year 2050".	**Climate Change Advisory Council**, created through the 2015 Climate Action and Low Carbon Development Act Official website: http://www.climatecouncil.ie/ *Membership and setup:* The Council consists of a chair and eight to ten (currently ten) councillors. In contrast to most other ICABs, the CCAC includes not just scientific experts but also four automatically appointed public officials. The other members are nominated by the minister responsible for climate action, and appointed by the government for a five-year term, which may be extended once. The CCAC has access to a small secretariat and an annual budget of approximately EUR 270,000. *Role and powers:* The Council advises the minister on both mitigation and adaptation strategies. Each year, the Council submits to the minister a report on progress made towards achieving climate targets. It also conducts periodic reviews at the discretion of the ministry.
Italy	Italy has a range of climate-related laws and policies but no overarching framework law, anchoring long-term national climate targets. Like all EU countries, Italy had to submit a NECP for the period from 2021 to 2030 to facilitate long-term, whole-economy planning and governance coordination.		
Latvia	Latvia does not currently have an overarching framework law that enshrines long-term national climate targets. However, according to Duwe et al. (2020), preparations for a climate law are underway. Like all EU countries, Latvia had to submit a NECP for the period from 2021 to 2030 to facilitate long-term, whole-economy planning and governance coordination.		
Lithuania	Lithuania does not currently have an overarching framework law that enshrines long-term national climate targets. Like all EU countries, Lithuania had to submit a NECP for the period from 2021 to 2030 to facilitate long-term, whole-economy planning and governance coordination.		

Luxembourg	A climate law (*Klimaschutzgesetz* or *loi relative au climat*) is currently in preparation More information (in French): https://bit.ly/3gPFMVO	The draft law establishes a 2030 target of reducing emissions by 55% compared to 2005 levels, with a view of achieving net-zero emissions in 2050.	The draft law refers to an independent expert body (Climate Observatory) that will provide advice to the government on the scientific, ethical and societal aspects of climate policy.
Malta	**Climate Action Act**, adopted in 2015 Full text: https://bit.ly/3fKp0WT	The bill lays out the institutional framework for coordinating climate action but in does not establish targets beyond those set by the UNFCCC/EU.	The law establishes a Climate Action Board (CAB), however, the CAB is de facto a stakeholder/steering body rather than an ICAB. It includes representatives of government entities, academia, business and civil society.
Netherlands	**Climate Law** (*Klimaatwet*), adopted in 2019 Full text (in Dutch): https://bit.ly/2XQwLoa	The law enshrines a long-term goal of reducing emissions by 95% by 2050 compared to 1990 levels, with an interim target of 49% by 2030. It also specifies that electricity production must be 100% carbon-neutral by 2050.	The climate law does not establish an ICAB, however, it makes reference to the existing Netherlands Environmental Assessment Agency (*Planbureau voor de Leefomgeving* or PBL), which provides strategic policy analysis on environmental matters and spatial planning. While it is described as an "autonomous research institute" it is an agency of the Dutch Ministry of Infrastructure and the Environment. Its remit goes beyond climate change and it employs approximately 300 people. Under the climate law, PBL's role is only very vaguely defined. It must publish an annual report, however, the law does not specify the contents of this report or if/how government is to respond.
Poland	Poland does not currently have an overarching framework law that enshrines long-term national climate targets. Like all EU countries, Poland had to submit a NECP for the period from 2021 to 2030 to facilitate long-term, whole-economy planning and governance coordination.		
Portugal	A Climate Base Law (*Lei de Bases do Clima*) is currently in preparation Draft law (in Portuguese): https://bit.ly/3fLtpsO	The law would enshrine the targets established in Portugal's strategic "Roadmap for Carbon Neutrality 2050".	The draft law calls for the establishment of an independent commission, consisting of ten experts that would be appointed by parliament based on proposals from research institutions and environmental NGOs. According to the draft, parliament would provide the commission with a secretariat and administrative, logistical, and financial support. The commission will assess and report on compliance with the climate law.
Romania	Romania does not currently have an overarching framework law that enshrines long-term national climate targets. Like all EU countries, Romania had to submit a NECP for the period from 2021 to 2030 to facilitate long-term, whole-economy planning and governance coordination.		
Slovakia	Slovakia does not currently have an overarching framework law that enshrines long-term national climate targets. Like all EU countries, Slovakia had to submit a NECP for the period from 2021 to 2030 to facilitate long-term, whole-economy planning and governance coordination.		
Slovenia	A Climate Policy Act *(Zakon o podnebni politiki*) is currently in preparation	The draft law sets a net-zero emissions target for 2050, with	The draft law foresees the creation of a climate council, made up on independent experts, appointed by the government upon recommendations of the ministry responsible for climate change. The council will advise on

	Draft law (in Slovenian): https://bit.ly/3gPvRzy	intermediary targets to be set in strategic documents.	Slovenia's long-term climate strategy, intermediate targets, and the government's annual report on progress and implementation. Upon request, it may provide advice on specific issues.
Spain	A Climate and Energy Transition Law (*Ley de Cambio Climático y Transición Energética*) is currently in preparation Draft law (in Spanish): https://bit.ly/30Jaw5i	The draft law establishes a 2050 target of achieving net-zero emissions and making the Spanish electricity system 100% renewable. An intermediate target for 2030 foresees at least 20% emission reductions, alongside targets on renewable energy and energy efficiency.	The draft law foresees the creation of an expert committee, which will be fully autonomous from government administration and must prepare an annual report to evaluate the government's climate and energy policies. The report will be debated in the Spanish Congress of Deputies, with the participation of the Government.
Sweden	**Climate Act and Climate Policy Framework** (*Klimatmål och klimatpolitiska ramverk*), adopted in 2017 More information: https://bit.ly/31HSzTR	The Climate Act itself does not enshrine targets but sets up a process for parliament to adopt targets. The Act was adopted alongside a policy framework specifying that Sweden aims to achieve net-zero emissions by 2045. The policy framework also includes milestone targets for 2020, 2030 and 2040.	**Climate Policy Council** (*Klimatpolitiska Rådet)*, created not through the Climate Act but through the parallel policy framework Official website: https://www.klimatpolitiskaradet.se/en/ *Membership and setup:* The Council consists of 8 expert members who are not appointed for a fixed term but cannot serve longer than three consecutive years (or six consecutive years in the case of the chair). They are appointed by the government based on Council recommendations (the first members of the council were appointed by the government in consultation with opposition parties). It has access to a small secretariat and total annual funding currently equals about EUR 1 million. *Role and powers:* Every year, the Council prepares a report to evaluate government progress towards climate targets. It also issues separate reports on the climate action plans which the government must produce every four years. In addition, the Council is explicitly charged with encouraging public debate on climate policy.
United Kingdom	**Climate Change Act** (CCA), adopted in 2008 and revised in 2019 to strengthen the long-term target Full text: https://bit.ly/3ae9FwF	The revised law enshrines a target of net-zero emissions by 2050. Five-yearly carbon budgets, to be set twelve years in advance, pave the way towards the long-term goal.	**Committee on Climate Change** (CCC), created through the 2008 bill Official website: https://www.theccc.org.uk/ *Membership and setup:* The CCC has currently nine members, who are appointed jointly by the Secretary of State and devolved authorities, based on their expertise (or, in the case of the chair, their political/professional experience). The CCC also has a seven-member sub-committee on adaptation. Each member has a fixed term appointment of 5 years, with the possibility of reappointment. The CCC has an annual budget of around GBP

			3.7 million, which it can use independently, and a secretariat of around 30 staff who contribute administratively and substantially to its work. *Role and powers:* The CCC plays an important role in setting targets and carbon budgets as well as monitoring progress made towards achieving them. It presents annual progress reports to parliament to which the government must respond. If the government deviates from the CCC's recommendations it must provide a thorough justification. The CCC may also conduct independent analyses into issues of interest or, upon request, provide specific advice to the government and national authorities.

5.5. The Diffusion of Climate Laws Worldwide

In the wake of the Paris Agreement, national efforts to establish overarching, long-term climate governance frameworks have been "multiplying around the world" (Rüdinger et al. 2018, p. 5). In 2018, the Climate Change Laws of the World database, hosted by the Grantham Research Institute on Climate Change and the Environment, included almost 140 holistic laws that set up a comprehensive governance framework with a view to addressing climate mitigation and/or adaptation (Nachmany and Setzer 2018). It should be noted that this number includes both legal and executive frameworks, many of which do not specify long-term whole-economy climate targets and most of which do not set up independent expert advisory bodies. Nevertheless, it is remarkable that comprehensive climate laws can now be found on almost every continent, including in many developing countries.

These laws differ significantly in scope, nature, and content given different legal traditions and climate-related priorities. It is beyond the scope of this report to provide a comprehensive global overview, however, Table 2 provides a snapshot of the state of play in selected countries with diverse geographical, political, economic, and climate vulnerability profiles (Canada, Fiji, Kenya, Mexico, New Zealand, Norway, Pakistan, and South Korea). New Zealand's recent climate law stands out as particularly robust, also establishing an independent, empowered, and sufficiently resourced Climate Change Commission. The Commission's advice on targets, carbon budgets and progress must be considered by the government and, according to observers, "[t]he commission has already shown it is not afraid to be proactive by offering advice to the government" (Gibson 2020). In contrast, climate laws enacted in Kenya, Pakistan, and South Korea have not established ICABs, although their national steering bodies allow for expert representation, among other stakeholders. Norway, too, does not have an expert advisory body with a clear, legally defined mandate. Mexico was among the first countries worldwide to adopt a national climate law and establish an ICAB – likely as a result of UK FCO soft diplomacy efforts in the late 2000s – however, the influence of the Mexican Council on Climate Change has been stymied by a lack of allocated resources (Interview 7). Meanwhile, in Canada, a large and institutionally sophisticated ICAB – the Canadian Institute of Climate Choices – has recently been set up, although an overarching federal climate law is not (yet) in place.

While climate laws in developing countries are focused primarily on mitigation objectives, this is not always the case elsewhere. Unsurprisingly, developing and climate vulnerable countries emphasize adaptation, resilience, and low carbon sustainable development (e.g. Kenya) or disaster risk responses (e.g. Fiji). Importantly, even where quantitative mitigation commitments are enshrined in law, these are not directly comparable due to different

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definitions, rules, and benchmarks. This is also true for the growing number of long-term "climate neutrality" or "net zero emissions" targets. As Rüdinger et al. (2018, p. 12) remark, "there are as many definitions of climate neutrality as there are countries who have made a pledge towards it." Nevertheless, the proliferation of legally enshrined mitigation targets is significant, opening up new avenues for holding governments to account, including through litigation (Setzer and Byrnes 2020, p. 9). Litigation may also be an avenue to push for the upward revision of binding mitigation targets. For example, youth activists in South Korea are currently suing the government over the sufficiency of its climate target, as enshrined in the Framework Act on Low Carbon Green Growth (see below).

Going forward, national climate framework laws could become an important instrument of global-to-local policy implementation. As Nachmany and Mangan (2018) note, "[s]etting robust targets in national laws and policies is crucial to the credibility of countries' commitments to the Paris Agreement." A growing number of national climate laws make direct reference to their international obligations under the Paris Agreement. However, to chart a clear pathway towards decarbonization, climate laws must be robustly designed, ensuring that responsibilities are clear and targets do not drop off the policy agenda, even in the face of other urgent crises (such as the COVID-19 pandemic). An exchange of experiences on the international level could promote a wider discussion on ICAB design principles and how these bodies might help transparency, accountability, consistency, and social acceptability of policies and targets. However, this discussion must also be sensitive to different country contexts, acknowledging that European experiences with climate laws and ICABs do not necessarily yield universal standards that all other countries will find practicable and normatively desirable.

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Table 2. Examples of Climate Laws and ICABs around the World

Country	Climate Law	Targets enshrined in law	ICAB
Canada	Canada does not currently have a federal framework law on climate change; however, the liberal party has advocated for legally binding five-yearly targets during the 2019 election campaign (Farand 2019b). Environmental groups and the newly established Canadian Institute for Climate Choices have called for a federal climate law modelled on the UK CCA (Croome et al. 2020; CICC 2020a). On the provincial level, climate framework laws have been adopted in Manitoba and British Columbia (CCIC 2020b; CICC 2020c).	A federal climate law, if adopted, is likely to enshrine a target to reduce emissions to net-zero by 2050.	While Canada does not currently have a federal climate law, an ICAB – the **Canadian Institute of Climate Choices** – already exists. The Institute was established in 2019, following a 2018 government bid. (Existing laws in Manitoba and British Columbia have both established ICABs.) Official website: https://climatechoices.ca/ *Membership and setup:* The Institute includes three separate expert panels on mitigation, adaptation and clean growth, each including 10-15 members from a broad range of disciplines. Their work is overseen by a Board of Directors (12 members, including a chair) which provides overall strategic direction. A 15-member Advisory Council, made up of leaders from different sectors (primarily industry and civil society), periodically provides input to the Institute's work. In addition, the Institute employs about 20 staff that provide administrative, communications and substantial research support. The Institute is an independent organization, supported through a five-year government contribution agreement. Over those five years, available funding will be up to CAD 20 million (approximately EUR 13 million). *Role and powers:* The Institute's mandate is to provide timely, relevant and rigorous policy analysis to governments across Canada as well as communicate and engage with diverse stakeholders and the general public. However, in the absence of a climate law its role is not as clearly defined as in other countries and its "watchdog" function is accordingly limited.
Fiji	A climate change bill is currently in preparation Full draft text: https://bit.ly/2Fs96nP	The draft bill declares a climate emergency and sets a long-term mitigation goal of net-zero GHG emissions by 2050, to be achieved through five-yearly carbon budgets.	Under the draft bill, the responsible minister has the power to appoint an independent expert advisory board to provide advice on implementation, including in relation to the setting of carbon budgets. However, there are no further provisions on the board's setup or powers.
Kenya	**Climate Change Act**, adopted 2016 Full text: https://bit.ly/2CnBFkT	The Act does not include quantitative mitigation targets but it provides a broad governance framework "to enhance climate change resilience and	The Act establishes a National Climate Change Council, however, this body is a high-level policy coordination and stakeholder mechanism rather than an ICAB. Of its nine members, five are ex officio ministers and public officials, only one is an academic representative.

		low carbon development for the sustainable development of Kenya."	
Mexico	**General Law on Climate Change** (*Ley General de Cambio Climático*), adopted in 2012 and last amended in 2018 Full text (in Spanish): https://bit.ly/31S9L9m	The amended law enshrines an unconditional commitment to reduce GHG emissions by 22% and black carbon emissions by 51% (compared to 2000 levels) by 2030. Subject to international support, these targets could be increased to 36% and 70% respectively. The law also makes references to an "aspirational" target of reducing emissions by 30% by 2020 and 50% by 2050 (compared to the 2000 baseline).	**Council on Climate Change** (*Consejo de Cambio Climático*), established through the 2012 General Law on Climate Change (a predecessor body had been in place since 2005) More information: https://bit.ly/2Fp3Wcd *Membership and setup:* The council includes a minimum of fifteen members from the social, private and academic sectors with relevant expertise and experience. They are appointed by the president of Mexico's Inter-ministerial Commission on Climate Change (which coordinates the implementation of national climate policies and actions), based on proposals of incumbent members, for a three-year fixed term that may be renewed once. It has only few resources and no dedicated website. *Role and Powers*: The council advises the Inter-ministerial Commission on Climate Change. It evaluates and makes recommendations on policies, targets and actions and may suggest studies into specific issues. It is also explicitly mandated to further public debate through the engagement of relevant stakeholders. However, observers note that the council has not been able to carry out these functions effectively "because of a lack of strategy and allocated budget" (Averchenkova and Guzman Luna 2018, p. 6).
New Zealand	**Climate Change Response (Zero Carbon) Amendment Bill**, adopted in 2019 to amend the 2002 Climate Change Response Act Full text: https://bit.ly/3h0eU5S	The bill commits New Zealand to reducing all GHG emissions (except biogenic methane) to net zero by 2050. Specific targets for biogenic methane emissions include a reduction by 10% by 2030 and 24%-47% by 2050 (compared with 2017 levels). Five-yearly carbon budgets, to be set at least 10 years in advance, pave the way towards the long-term goal.	**Climate Change Commission**, established through the Amendment Bill (an Interim Climate Change Committee had been working since 2018) Official website: https://www.climatecommission.govt.nz/ *Membership and setup*: The Commission is an independent Crown entity, consisting of seven members (including a chair and deputy chair) who bring a broad range of expertise and experience, including on the Crown-Māori relationship. Members are recommended to the Governor-General by the minister of climate change, based on suggestions by a nominating committee, which must include the chairperson of the Commission. There is no fixed term of office, however, the minister must ensure that no more than two members have their terms of office expire in any given calendar year. The financial statement for 2020/21 is based on the expectation that revenues will amount to approximately NZD 8.5 million (EUR 4.7 million). The

			Commission is supported by a small team with substantial expertise in relevant issues areas. *Role and powers*: The Commission advises the government on mitigation and adaptation and monitors progress made towards achieving climate targets. More specifically, it must advise on the sufficiency of the 2050 target, provide recommendations on the climate budgets, and prepare annual reports on progress made towards achieving carbon budgets and the long-term target. The government must respond to the Commission's input within a statutory period of time and justify any intention to depart from its advice. With regard to adaptation, the Commission must regularly provide climate risk assessments and progress reports on the national adaptation plan. Upon request, it may prepare other reports as well. The Commission also has an obligation to proactively consult and engage with relevant communities and the general public.
Norway	**Climate Law** (*Lov om klimamål*), adopted in 2017 Full text (in Norwegian): https://bit.ly/2FhRuuG	The law enshrines a 2030 target to reduce GHG emissions by at least 40% compared to 1990 levels. By 2050, emissions must be reduced by 80-95%. Climate goals are to be reviewed every five years.	The climate law makes no reference to an ICAB. Although a Climate Council (*Klimarådet*) has been in existence since 2014 to advise on Norway's transition to a low-carbon society, it lacks a clear mandate and political weight. Its 26 members do not only include experts but also stakeholders from business, labor organizations and NGOs. However, there have been recent calls to establish an ICAB modelled on the UK CCC (Holtvedt 2020).
Pakistan	**Climate Change Act**, adopted in 2017 Full text available via: https://bit.ly/3iSegrF	The Act does not include quantitative mitigation targets but it establishes new institutions and processes in order "to meet Pakistan's obligations under international conventions relating to climate change and address the effects of climate change."	The Act establishes a national Climate Change Council, however, this body is a high-level policy coordination and stakeholder mechanism rather than an ICAB. Its approximately 30 members include, ex officio, the prime minister (acting as chair), a number of federal and provincial ministers and other public officials. Other members of the body include scientific experts but also representatives of business, industry, and civil society.
South Korea	**Framework Act on Low Carbon Green Growth** (*저탄소 녹색성장 기본법*), adopted in 2010 and last amended in 2019 Full text (in Korean): https://bit.ly/3kUFSy1	Among a range of other green growth provisions, the Act commits South Korea to reducing GHG emissions by 24.4% from 2017 levels by 2030. In March 2020, a group of youth activists filed a complaint at the South Korean Constitutional Court, arguing that this target is insufficient (Lee 2020).	A Presidential Committee on Green Growth was established in 2009 to provide holistic steering of green growth policies and coordinate implementation. As such, the committee is a high-level policy coordination and stakeholder body rather than an ICAB. It has up to 50 members, including public officials and experts commissioned by the president.

5.6. The Potential for Climate Laws and ICABs in ASEAN Member States

There are no dedicated climate laws or independent climate advisory bodies in the ASEAN region. ASEAN regional climate policy is a voluntary natural resource management toolkit rather than a policy prescriptive with concrete and binding targets. Overall, climate regulations and policies within ASEAN member states (AMS) lack ambition. Given the importance of climate laws and independent climate advisory bodies (ICABs) in driving and institutionalizing climate ambition, in this section, we explore the potential for similar developments in Southeast Asia. It is revealed that deeper structural-historical factors specific to this region have left civil society, a crucial component for effective climate laws and ICABs, relatively weak. This effectively limits the quality and extent of political participation and accountability. Within the multiple streams framework, the restrictive nature of political participation and accountability restrict how policy problems are formulated, place limitations on who can forward policy alternatives, while the politics stream is often characterized by immense power asymmetries between political elites and climate advocates. This underlines the observation made in Section 4 that climate policy tools that have proven effective in the EU context cannot simply be exported into AMS. With domestic *problems*, *policies*, and *politics* streams highly skewed towards elite interests, formal ICABs (if they were to be set up) would be unlikely to have much voice in policy processes, or worse, could be captured and produce politicised advice. As such, less formal attempts to hold governments to account over climate action are currently more likely to induce a degree of change. An emergent grassroots monitoring and advocacy regime comprised of domestic civil society organization appears to offer the most promising avenues for norm diffusion as they draw on multiple metagovernance norms in attempts to disrupt the otherwise limited problem and policy stream. However, in order to act as an effective counterweight to incumbent interests in domestic policy processes, they will need to significantly broaden their popular base of support.

Climate laws and ICABs are importantly institutions of accountability where their emergence and future success hinges on the extent and quality of political participation particularly from civil society and non-elite social bases. The relatively weaker levels of accountability and participation in Southeast Asia have deeper social foundations. During the Cold War, nascent autocratic regimes in Singapore, Malaysia, Thailand, and the Philippines severely repressed competing societal interests in order to push for capitalist growth that buttressed domestic political support (Rodan 2018, p. 44). State intervention in the economy was largely directed towards supporting regime-linked business interests (Carroll 2020, p. 46) rather than a broader sense of “public good”. Key casualties during this period were distributional coalitions such as organized labor and reformist political parties – the same coalitions that drove democratization

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in Western Europe and some parts of East Asia such as South Korea and Taiwan. In state-socialist regimes in Cambodia and Vietnam, independent organizations were all but wiped out during this period. While subsequent democratic movements produced divisions between elite groups and enabled the re-emergence of civil society in certain countries, the latter have never fully recovered from the often-brutal repression during the Cold War-era. This weakness was further compounded by economic globalization and neoliberal reforms that increased the mobility and power of capital (Rodan 2018, p. 44).

The outcomes of these historical struggles in the region have produced institutions that are largely geared towards forwarding the interest of key politico-business coalitions (elaborated in section 4). These, in turn, shape how the *problem*, *policy*, and *politics* streams play out in climate governance. The policy problem is often narrowly defined by elite interests. As the account in section 4 demonstrates, political elites in the region have recognized the severity of the problem of climate change. They have acknowledged scientific reports and the region has had its fair share of "focusing events" such as the annual transboundary haze. However, since the problem is defined by narrow dominant elite interests, it is often articulated together with economic concerns. As section 4 has demonstrated, the climate policy problem, as defined by elites, is how will climate policy support existing models of economic growth rather than how climate policy would primarily safeguard access to public goods.

The *policy* stream in the region is similarly problematic as illiberal institutional structures severely limit who can forward policy alternatives. A clear example of this is Singapore's Emerging Stronger Taskforce that seeks to formulate policies on the country's post-COVID economic recovery with a strong focus on green growth. The Taskforce is entirely made up of establishment and industry figures, including the Asia-head of Exxon Mobil, with no representatives from civil society (Hicks 2020). While industry groups are invited to devise solutions for recovery through the Alliances for Action initiative, citizens are only invited to participate as individuals in a "dialogue series" called the Emerging Stronger Conversations (A. Tan 2020). At the regional level, while ASEAN has sought to buttress its legitimacy through greater engagement with civil society on policymaking following the Asian Financial Crisis, it has systematically excluded activists and groups (particularly human rights and environmental ones) whose agendas threaten dominant interests (Gerard 2014).

Correspondingly, the *politics* stream within the region is characterized by great power asymmetries between dominant groups acting through formal institutions, on the one hand, and reformist groups outside these institutions attempting to forward more progressive policy alternatives. The latter are either co-opted into elite agendas, excluded from policy considerations, or suppressed. In view of these structural constraints, the remainder of this

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section considers the potential for independent climate advisory bodies in the region. We consider both existing market regulatory bodies as well as national human rights bodies but conclude that grassroots civil society movements, despite key limitations, offer the most promising alternatives to improving participation and accountability around climate policy in the region.

The ASEAN region does not have any independent climate advisory bodies (ICABs). The Philippines, Cambodia, and Indonesia have national climate bodies, but all are exclusively government bodies (Weaver, Lötjönen, and Ollikainen 2019, p. 5). The Philippine and Cambodian councils are among the smallest in the world – comprised of just 3-5 members – and are hence seen to be less inclusive (ibid, p. 6). These bodies are largely tasked with advising policymakers on climate policy and sustainable development. They do appear to have some engagement with scientific experts and, to a lesser extent, civil society, but their institutional design does not incorporate membership for either. We do not envisage that any of these bodies would be made independent with institutional requirements for expert and civil society membership anytime soon.

Independent Regulatory Agencies (IRAs) such as market regulatory bodies have considerably more independence than such national councils in the region. The IRAs of Southeast Asia were mostly introduced in the wake of the Asian Financial crisis and were part of domestic neoliberal economic reforms meant to establish and safeguard market competition. However, in Indonesia, we see that those that intrude on oligarchic and state-owned monopolies were often undermined or dissolved with only the weakest still surviving (Davidson 2017). Human rights bodies have more potential than IRAs given their independence, but also because they deal in more socially progressive agendas that regularly intersect with environmental issues. Recently, the Indonesian National Commission of Human Rights (KOMNAS HAM) and the Human Rights Commission of Malaysia (SUHAKAM) have taken up environmental degradation as a human rights issues with the excesses of the palm oil industry emerging as a target (Andapita 2019; Setiawan 2020). While increased intra-elite friction at various stages have produced more accountable national bodies, they have been regularly undermined by elite factions whose interests are being challenged (Rodan 2009; Setiawan 2016). KOMNAS HAM have also suffered from the lack of willingness of other state bodies to cooperate given that their core work focuses on political killings that a number of elite figures have been directly or indirectly involved in (Setiawan 2016). While the reign of the Pakatan Harapan government in Malaysia from May 2018 to February 2020 potentially signaled a more prominent role for SUHAKAM, the fall of the Pakatan, and its subsequent replacement by the nationalist-conservative Perikatan Nasional, indicate a gloomier outlook for the human rights body.

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More promising is the emergence of informal grassroots regimes of civil society actors that (i) monitor and report environmental degradation and climate policies, and (ii) advocate for policy alternatives either as “policy entrepreneurs” or political adversaries. While climate activism may appear unremarkable in Western liberal democracies, it has been an important driver for climate ambition and transparency, political accountability, and participatory policymaking. In contrast, climate activism in Southeast Asia is conducted within very limited political spaces where collective action can sometimes be criminalized or violently suppressed. Yet, it is the work of environmental and climate non-governmental organizations (NGOs) and think tanks that have most consistently challenged governments’ lack of overall climate ambition as well as the structural factors that lead to environmental degradation. While climate activism has taken a variety of forms across the region, we focus our attention to NGOs and think tanks in Singapore and Indonesia. Our account is largely informed by the work of the following organizations – Speak For Climate, SG Climate Rally, 350.org Singapore (all Singapore), the Mining Advocacy Network (JATAM), the Indonesian Forum for Environment (WALHI), and World Resource Institute (WRI) Indonesia (all Indonesia).

Despite regularly working outside of formal institutional channels, climate and environmental NGOs and think tanks are the most concerted avenues for the diffusion of metagovernance norms. Many of the groups observed selectively “download” more ambitious metagovernance norms in order to advocate for policy alternatives. WRI Indonesia, for instance, has become the focal point of attempting to diffuse Science-based Targets (SBTs) to industry groups and government agencies. One climate activist from Singapore says they “cherry-pick the best practices that are supported by science and implemented well in other contexts” such as waste management policies in South Korea and Taiwan (Interview 9). Other activists interviewed cited a broad range of “influences” including IPCC reports and recommendations, climate targets of other states, peer-reviewed climate science research, UK-based think tank Common Wealth, and even political ideologies like eco-socialism.

The leveraging on more ambitious metagovernance norms also allows these NGOs and think tanks to reframe the policy problem through public and closed-door advocacy. WRI Indonesia, as a policy entrepreneur, has attempted to improve carbon transparency by pushing for “data loops” that could segue into greater climate ambition on the part of government bodies and the private sector (Dagnet et al. 2019). Climate NGOs in Singapore have also sought to radically reframe the policy problem by challenging the government’s narrow narrative on climate change. Most recently, the Activism in Crisis initiative, organized by a network of domestic NGOs including SG Climate Rally and Speak For Climate, sought to recouple the climate crisis with social justice and redistribution on the basis that “those who are already excluded by society and who contribute the least towards the climate crisis will be affected

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most by it" (Activism in Crisis 2020). In the lead up to the 2020 general elections in Singapore, SG Climate Rally and Speak for Climate organized a climate scorecard for all political parties based on a number of metrics. This was supplemented by a concerted campaign to get members of the public to individually lobby their political candidates to adopt more ambitious climate targets.

Despite significant inroads, the *politics* stream in the region continues to be characterized by significant power asymmetries. In countries such as Indonesia and Cambodia, environmental activists continue to be harassed by government officials and worse (Mogabay 2020; Human Rights Watch 2020). In Singapore, young climate strikers who individually posed for photos with placards were hauled up by the police for questioning over the country's strict illegal assembly laws (Han 2020). Most governments in the region continue to systematically exclude civil society with competing claims from climate and economic policy debates. The Singapore state, by far, demonstrates the most sophisticated mechanisms for controlling participation while excluding political contestation. NGOs are handpicked to attend closed door consultations, with more radical or adversarial groups excluded. At these closed-door sessions, activists report that government representatives are more concerned with explaining the government's climate policies rather than seriously considering alternatives (various interviews). Publicly, government figures attempt to corral the support of climate NGOs in order to legitimize the government's own climate policies.

A key weakness faced by many of these NGOs and think tanks in the region is that they lack significant "social bases" of support, and as such, find it difficult to gain political traction beyond their limited immediate constituencies such as local communities and domestic supporters. Environmental NGOs in Indonesia often rely on working closely with and advocating for communities directly impacted by specific environmental disasters but enjoy little broad-based support beyond these. Furthermore, mining companies and agribusinesses have leveraged on a range of voluntary private standards to engage more with local communities (Sinclair 2020). Variegated outcomes from these engagements tend to militate against the development of a broader domestic movement against extractive industries. While specific NGO initiatives in Singapore seek to mobilize more broad-based support for climate issues, these are still in their infancy with the SG Climate Rally, one of the largest groups, only starting in mid-2019.

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6. Conclusion

This paper has demonstrated how multilevel processes shape the current global climate governance landscape, with a focus on the UNFCCC regime. Above all, it has sought to convey that climate governance under the UNFCCC is not a linear process of global-to-local policy transmission. Using a multilevel governance (MLG) perspective, supplemented with insights from scholarship on policy entrepreneurship, this paper has shown how a variety of actors – states, multilateral bodies, transnational networks, sub-national authorities, private organizations, even individual leaders – are involved in governing the climate at different levels of interventions, creating potential for vertical and horizontal scaling of policies but also policy stagnation, contestation, and resistance.

The first part of the paper has zoomed in on regional multilateral arrangements, which constitute particularly interesting theatres for multilevel interaction. We have compared EU climate governance, which is based on uniquely intrusive supranational laws and regulations, with existing ASEAN-led frameworks, which are very limited in scope, providing only few meta-policies that tend to be soft and facilitative rather than prescriptive. John Kingdon's (1984) multiple streams framework (MSF) has allowed us to explore how MLG processes in the EU have, at multiple occasions, created favorable structural conditions – or "windows of opportunity" – for various policy entrepreneurs to push for significant policy change on the regional level.[17] In contrast, in the ASEAN context, where national sovereignty concerns are paramount, such windows of opportunity have rarely opened and potential policy entrepreneurs must contend with resistance from powerful domestic politico-business coalitions.

Significant differences are also apparent with regard to the interactions between regional bodies and the UNFCCC. The EU has long been recognized as a foreign policy actor in its own right, in particular in the climate space, where its external leadership ambitions have been closely linked to internal integration processes. European climate governance has developed in tandem with the international regime, with the EU actively shaping outcomes at the UNFCCC level while simultaneously being shaped by those outcomes. In contrast, ASEAN member states do not engage with the UNFCCC as part of a single, coherent negotiation group and national policy preferences converge principally in relation to their prioritization of economic development concerns. Yet they, too, have sought (less successfully) to use UNFCCC negotiations to "upload" those preferences and are, in turn, increasingly engaging

[17] Examples include the establishment of the EU-ETS, the adoption of the first climate and energy package and, most recently, the proposal for a European Green Deal.

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with global standards and UNFCCC reporting requirements as they take on new responsibilities under the Paris Agreement.

Of course, any comparison of climate governance arrangements in the EU and ASEAN has to acknowledge vast differences in terms of capacity, levels of development, internal political diversity, and historical responsibility. Comparison is also restricted by the EU's unique ability to impose costly legal restrictions on member states and non-state constituencies (Phelan 2012), although – as the "Dieselgate" scandal has demonstrated – these restrictions are not always properly enforced and implemented. With the notable exception of the EU-ETS, EU climate governance relies heavily on traditional legal and regulatory tools, which may be difficult to translate into the ASEAN regional context, where barriers to legalization are high and voluntary agreements and market-based mechanisms play a more prominent role. As Jordan, Huitema, and van Asselt (2010, p. 19) point out, legalization may also not be appropriate in all policy contexts, including adaptation, "which is not as amenable to a 'one size fits all' regulatory approach as mitigation". Finally, it is important to emphasize that even though active policy entrepreneurship, multi-level reinforcement, and consistent leadership aspirations have made the EU a comparatively ambitious actor on the international level, climate governance in the EU has also known intense contestation, policy obstruction, and long stretches of relative stagnation. Going beyond direct comparison, future analysis could explore the impact of financial and technology transfer as well as trade and diplomatic relations between the EU and ASEAN in relation to climate change. Interregional dialogue is long-standing and the two regional bodies have vowed to enhance collaboration in this space, including through the launch of a High-Level Dialogue on Environment and Climate Change in 2019 (EEAS 2019).

Another promising line for future inquiry relates to the theoretical refinement of the MLG and MSF frameworks and their application in different contexts. What strategies have policy entrepreneurs developed to advance their agendas in a multilevel setting? How do they utilize global frameworks to push for change on the regional, national, or local level (and vice versa)? What role does collaboration play? What are the implications of the ASEAN experience, where a highly asymmetric *politics* stream leaves little scope for successful bottom-up policy-entrepreneurship? And finally, as we elaborate below, how does the unique, "super-wicked" problem structure of climate change (Levin et al. 2012) affect policy processes? Developing a better understanding of these questions is crucial to considering how global governance arrangements, including those under the UNFCCC, can be re-designed to bolster the authority of domestic pro-climate policy actors.

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The last part of this paper has explored the emergence and subsequent diffusion of national climate laws. Although MLG arrangements provide various actors, both public and private, with opportunities to initiate, support, obstruct, or resist policy change, states remain the most important players in global climate governance. Notwithstanding the potential of the Paris Agreement to catalyze "a groundswell of transnational climate action" (Hale 2016, p. 12), the success of the Agreement essentially depends on whether states are willing to make ambitious climate commitments and stick to them. As this paper has argued, national climate laws could present a promising governance tool in this regard, enshrining long-term decarbonization pathways and establishing institutional arrangements – including independent climate advisory bodies (ICABs) – to monitor progress and hold governments to account. Climate laws also present a particularly intriguing case of horizontal and vertical policy diffusion. Close collaboration between policy entrepreneurs in the civil society space and representatives from government and opposition enabled the adoption of the UK Climate Change Act in 2008, the first national law to legally enshrine long-term emissions reductions goals. Since then, the concept has diffused to a growing number of countries and sub-national jurisdiction, in Europe and beyond, as a result of learning and socialization processes as well as sustained entrepreneurship by various actors, notably philanthropical and research organizations. The Paris Agreement also appears to have accelerated the diffusion of climate laws (Duwe et al. 2020). The EU could soon become the first region to adopt a supranational climate law, with a view to "contribut[ing] to the implementation of the Paris Agreement" (European Commission 2020b, p. 2). Yet, while climate laws have the potential to be powerful instruments to lock in political willingness and provide an overall governance framework, they are not a silver bullet. As we have demonstrated, a closer look at existing legal and institutional arrangements reveals significant diversity and some climate laws appear to be more symbolic than substantial. In particular, only a handful of countries have established robust and empowered ICABs, able to effectively confront governments over implementation failures.

Initial research into the link between national legislation and actual GHG emissions reductions has demonstrated "the importance of a solid legal framework" as well as "disciplined implementation" of such frameworks (Eskander and Fankhauser 2020, p. 6). This will be particularly important in light of COVID-19 and other situations of crisis and uncertainty, when concerns over economic and other repercussions threaten to crowd out climate-related concerns. Applying an MSF lens, climate laws serve to insulate hard-won policy commitments from fluctuation in the politics stream. That said, they should not stymie activity in any of the streams. Given the drastic changes required to achieve the goals of the Paris Agreement, climate laws could be counterproductive if they lock in insufficiently ambitious targets. Therefore, well-designed climate laws provide overall institutional stability, while also including

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procedures for reviewing targets and enabling their upward revision, based on parliamentary and ICAB input (Duwe et al. 2020). It is also important to clarify that climate laws and ICABs primarily serve to provide a directional framework for climate governance, rather than prescribing specific policies and sectoral measures. As such, climate laws can help walking the tightrope between the need to lock in climate commitments and the need for democratic control over how these commitments are being honored (Interview 8).

Going forward, discussions on the growing urgency of mitigating and adapting to climate change are likely to move further from “what” to “how” as the wider societal implications of decarbonization become more apparent, fueling contestation and distributive conflict at all levels of interventions. With the success of international climate agreements and national policies ultimately depending on the existence of strong domestic pro-climate constituencies, distributive conflict could have major ramifications for the prospect of implementing the Paris Agreement, regional climate frameworks as well as national laws and policies (Aklin and Mildenberger 2018). Policymakers have therefore been keen to highlight the economic co-benefits of climate interventions. As explored above, the EU has promoted its proposed Green Deal as a motor for economic growth. Meanwhile, in the ASEAN context, climate change is framed primarily as a sustainable development issue and national-level interventions have often responded to pressures from global financial markets. National climate laws, too, have frequently been presented as a means to grow jobs and the economy (UK Government 2019). At the same time, cutting-edge research on problem-focused thinking in public policy suggests that climate change and the threat of environmental breakdown constitute a specific type of problem that cannot be effectively addressed if human (economic) utility continues to be prioritized (Cashore and Bernstein 2020). This perspective challenges the viability of “green growth” narratives in light of the need to fundamentally disrupt carbon lock-in at all scales and levels (Bernstein and Hoffmann 2019). It also suggests that the multi-faceted problem structure posed by climate change is still not well understood, posing a major barrier to devising appropriate governance responses (Peters 2005). Future research could profit from paying more attention to problem structure and framing, including by exploring the ability of policy entrepreneurs to act not only as advocates for specific solutions but also as “problem brokers,” advancing new understandings of long-standing governance issues (Knaggård 2015).

COVID-19 could have significant implications in this regard, even though the long-term impact of the pandemic is highly uncertain. On the one hand, fears over its economic impact have reinforced notions that climate interventions must also serve growth imperatives. On the other hand, the pandemic has served as a distress signal, demonstrating what (contained) global catastrophe looks like. Importantly, it is increasingly recognized that the COVID-19 outbreak

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is a human-made disaster, closely linked to the same economic practices that fuel global warming and massive species extinction (Brown 2020). A number of successful national-level interventions to the crisis have shown “that governments can intervene decisively once the scale of an emergency is clear and public support is present”, highlighting, among other things, the enduring relevance of state capacity (Hepburn et al. 2020, p. 4). However, when it comes to global governance responses, COVID-19 has largely been a failure (Pegram 2020). A chronically under-resourced and increasingly embattled World Health Organization (WHO) has been unable to provide sufficient coordination, facilitate collaboration, and galvanize international solidarity. Indeed, we have seen powerful actors actively undermining collaborative approaches, attempting to corner the market on vaccines and antiviral drugs (Lexchin 2020), and even engaging in “modern piracy” to secure the supply of personal protective equipment (Willsher, Borger, and Holmes 2020). The pandemic is also a stress test for regional governance structures, including the EU, which has struggled to launch a joint emergency response and saw unprecedented restrictions of its fundamental freedoms as member states reinstated border checks and closures (Hadfield 2020). The underperformance of supranational governance arrangements in light of COVID-19 does not bode well for the response to other global catastrophes, including climate change and environmental degradation. However, as the consequences of human infringement on planetary boundaries become increasingly apparent, there is also scope for domestic pressure to shift hardline positions, creating new windows of opportunity for policy entrepreneurs to push for rapid mitigation and adaptation action at all levels of intervention, including the UNFCCC.

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Appendix I: Details of Interviewees

Numbered in order of appearance:

Interview 1: European Commission representative

Interview 2: Consultant; former civil society representative (EU-based)

Interview 3: Think tank representative (Indonesia)

Interview 4: Researcher (Indonesia)

Interview 5: Civil society representative (Singapore)

Interview 6: Civil society representative (Singapore)

Interview 7: Researcher (EU-based)

Interview 8: ICAB representative (EU-based)

Interview 9: Climate activist

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