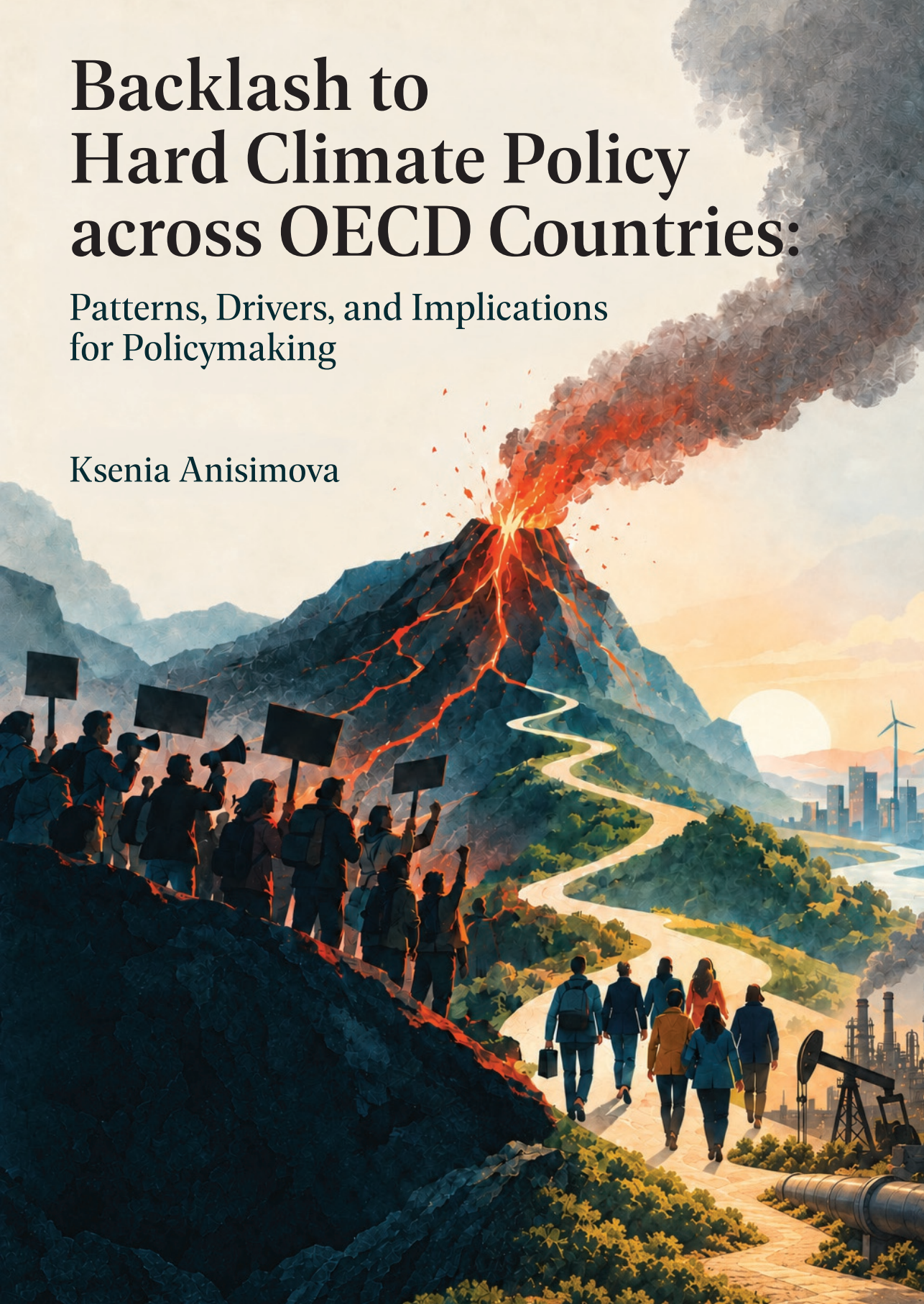
Backlash to Hard Climate Policy across OECD Countries:

Patterns, Drivers, and Implications for Policymaking

Ksenia Anisimova



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Backlash to Hard Climate Policy across OECD Countries

Patterns, Drivers, and Implications for Policymaking

Backlash tegen Streng Klimaatbeleid in OESO-landen:

Patronen, Oorzaken en Implicaties voor Beleidsvorming

(met een samenvatting in het Nederlands)

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To my beloved parents,

with deepest gratitude for your love, unwavering support, and inspiring example.

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THESIS SUMMARY

Hard (coercive) climate policies (i.e., pricing and taxation, regulation, and phase-outs) are important to ambitious decarbonization, yet they impose costs that are private, immediate, and concentrated on identifiable target groups, while the benefits they produce are public, deferred, and dispersed across populations and generations. This asymmetry makes such policies particularly prone to public backlash: abrupt, forceful, reversal-oriented form of contestation that can stall, weaken, or roll back policies after adoption.

Despite its growing salience, backlash remains poorly understood. While recent studies provide insights into the nature of this phenomenon and describe its empirical manifestations, the literature still lacks systematic comparative evidence on how prevalent it actually is; the conditions producing it have rarely been examined as combinations spanning both policy content and policy context; the relationship between backlash and policy failure has been asserted more often than tested; and the policy experts' perspective on what contestation is a problem of has been largely absent.

Against this background, the thesis asks: what conditions give rise to public backlash to adopted hard climate policies in OECD countries, and with what implications for climate policymaking? It aims to characterize the prevalence of backlash, explain the conditions under which it arises, evaluate its consequences for policy outcomes, and learn from how experts problematize conditions of contestation and what possible action points they put forward to help enhance policy viability.

To this end, the thesis analyses 50 hard climate policy packages across 21 OECD countries between 2009 and 2022, drawing on structured interviews with 62 policy experts. It combines media content analysis to map prevalence, fuzzy-set Qualitative Comparative Analysis (fsQCA) to identify conditions, and structured comparative case analysis to evaluate policy implications, working from a defined policy population so as to avoid selecting on the outcome.

The findings are fourfold. Following the analysis, backlash is found to be the exception rather than the rule, occurring in roughly 12% of cases, clustering among carbon pricing and taxation policies and in the latter half of the study period, with no straightforward link to particular design features. It arises configurationally rather than from any single factor: a core combination of policy demandingness and unfairness, joined in different cases by socio-political polarization, low climate concern, or weak information provision. Backlash is also distinct from policy failure: the cases that fared best were not the least contested but those that adapted most effectively in response to contestation. Finally, treating experts as "problem brokers," the thesis distils a repertoire of action points in which problems rooted in policy design (e.g., policy unaffordability, ineffective redistribution, policy misinterpretation)

admit direct intervention, while problems rooted in policy context (e.g., partisan capture, policy legitimacy deficit) call for strategic policy orientation.

The thesis makes three contributions. Theoretically, it advances backlash as a distinct, configurationally produced phenomenon with not only detrimental but also productive effects, since contestation can activate much-needed policy adaptability. Empirically, it establishes a systematic medium-N evidence base and a comparative baseline the field had lacked. In policy terms, it offers a diagnostic vocabulary and action point repertoire for helping design and implement climate policy prone to contention. Its central message is that backlash is less prevalent and more diverse in its implications than emblematic cases suggest, and that policymakers could prioritize focusing on policy viability through adaptability rather than focusing on backlash avoidance per se.

SAMENVATTING IN HET NEDERLANDS

Strenge of dwingende klimaatbeleidsmaatregelen (zoals beprijzing en belasting, regulering en uitfaseringen) zijn belangrijk voor ambitieuze decarbonisatie, maar leggen kosten op die individuen en bepaalde doelgroepen direct raken, terwijl de voordelen ervan over bevolkingsgroepen en zelfs generaties verspreid zijn. Deze asymmetrie maakt dit soort beleidsmaatregelen bijzonder vatbaar voor publieke weerstand (backlash): een abrupte, sterke en op terugdraaiing gerichte vorm van weerstand die beleid na de vaststelling ervan kan vertragen, verzwakken of terugdraaien.

Ondanks de toenemende relevantie ervan blijft backlash slecht begrepen. Hoewel recente studies inzicht verschaffen in de aard van dit fenomeen en de empirische verschijningsvormen ervan beschrijven, ontbreekt het in de literatuur vooralsnog aan systematisch en vergelijkend bewijs van de mate waarin backlash daadwerkelijk voorkomt. Ook zijn de omstandigheden waaronder backlash tot stand komt zelden bekeken als samenkomst van zowel beleidsinhoud als -context. Bovendien is het verband tussen backlash en beleidsfalen vaker verondersteld dan getoetst, en ontbreekt het in dit opzicht aan aandacht voor het perspectief van beleidsmakers.

Tegen deze achtergrond stelt dit proefschrift de vraag: welke voorwaarden geven aanleiding tot backlash tegen aangenomen streng klimaatbeleid in OESO-landen, en met welke implicaties voor het klimaatbeleid? Het beoogt de prevalentie van backlash te bepalen, de voorwaarden waaronder het ontstaat te verklaren, de gevolgen voor beleidsuitkomsten te evalueren, en te leren van de manier waarop beleidsexperts ermee omgaan.

Hiertoe analyseert het proefschrift 50 strenge klimaatbeleidspakketten in 21 OESO-landen tussen 2009 en 2022, op basis van gestructureerde interviews met 62 beleidsexperts. Het combineert inhoudsanalyse van media om de prevalentie van backlash in kaart te brengen, fuzzy-set kwalitatieve vergelijkende analyse (fsQCA) om de voorwaarden te identificeren, en gestructureerde vergelijking van casussen om de gevolgen ervan te evalueren, waarbij wordt uitgegaan van een afgebakende beleidspopulatie om het selecteren op de uitkomst te vermijden.

De bevindingen zijn viervoudig. Backlash is eerder uitzondering dan regel: het komt voor in ongeveer 12% van de gevallen, en vooral bij beleid voor koolstofbeprijzing en -belasting en in de tweede helft van de onderzoeksperiode. Ook ontstaat backlash uit een combinatie van factoren in plaats van één enkele factor: vaak een combinatie van beleidseisen en onrechtvaardigheid van beleid, in verschillende gevallen aangevuld met sociaal-politieke polarisatie, lage klimaatbezorgdheid of gebrekkige informatievoorziening. Backlash is bovendien te onderscheiden van beleidsfalen: de gevallen die er het best uitsprongen waren niet de minst betwiste, maar degene die zich het effectiefst aanpasten in reactie op de weerstand.

Ten slotte destilleert het proefschrift, door experts te beschouwen als "problem brokers", een repertoire van actiepunten waarin problemen die voortvloeien uit het beleidsontwerp directe interventie toestaan, terwijl problemen die hun oorsprong vinden in de beleidscontext om strategische oriëntatie vragen.

Het proefschrift levert drie bijdragen. Theoretisch positioneert het backlash als een bijzonder, configurationeel fenomeen met niet alleen schadelijke maar ook productieve effecten, aangezien weerstand het broodnodige aanpassingsvermogen van beleid kan activeren. Empirisch vestigt dit proefschrift een systematische, empirische, en vergelijkende basis waaraan het in het veld tot dusver ontbrak. Voor beleidsmakers biedt het een diagnostisch vocabulaire en een repertoire van actiepunten voor het besturen van klimaatbeleid. De centrale boodschap is dat backlash minder vaak voorkomt en diversere gevolgen heeft dan emblematische gevallen doen vermoeden, en dat beleidsmakers prioriteit zouden moeten geven aan het aanpassingsvermogen van beleid, in plaats van het vermijden van backlash op zich.

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Chapter I

Introduction

1.1 RESEARCH PROBLEM

As the climate emergency accelerates, climate change action is likely to remain politically demanding. Across OECD countries, climate policy has already become a recurring site of public backlash. By public backlash here, I refer to a distinct phenomenon of policy contestation involving "an abrupt and forceful negative reaction by a significant number of actors seeking to reverse a policy, often through extraordinary means that transgress established procedures and norms" (Patterson, 2023, p. 68). Among different types of backlash, in this thesis, I focus on the backlash driven by mass publics and occurring after policy adoption. For instance, the Yellow Vest movement that paralyzed France for months from late 2018 in response to the Carbon Charge Component (Driscoll, 2023), the repeal of Australia's Carbon Pricing Mechanism after a sustained campaign branding it a "carbon tax" (Crowley, 2017), the backlash against Canada's federal carbon pricing in 2018–2019 spearheaded by conservative elites (Lachapelle & Kiss, 2019), the protests that erupted across Mexico in 2017 when the country's carbon tax coincided with rising fuel prices (Renner, 2018), and the contestation surrounding Germany's 2020 Coal Exit Law from coal regions and climate movements alike (Haas et al., 2022) all share a common feature: each occurred as a negative mass public response to an adopted hard climate policy.

While hard policies can be effective in reducing emissions (Fernández-i-Marín et al., 2026; Stechemesser et al., 2024), they generate a distinctive problem for democratic policymaking given the asymmetry between costs and benefits. By definition, hard climate policy (following Salamon (2001), Schulze (2021), and Patterson (2023)) implies imposition of costs through "behavioral constraints or negative economic incentives" on policy recipients, "backed by the threat of sanction or force" (Patterson, 2023). Following Patterson (2023), I distinguish between pricing/taxation (which imposes mandatory costs on emissions-intensive behavior) (Barragán-Beaud et al., 2018; Green, 2021), regulation (which imposes limits or constraints on certain activities) (Knill et al., 2012; Richards, 1997), and phase-outs (which terminate specific technologies or production patterns) (Egli et al., 2022; Rinscheid et al., 2022). The costs these policies impose are private, immediate, and concentrated among identifiable target groups (households, sectoral workforces, energy-intensive industries); while the benefits hard climate policies produce are public, deferred, and dispersed across populations and generations (Harrison & Sundstrom, 2010; Jordan & Matt, 2014; Rabe, 2018). This asymmetry makes hard climate policies particularly prone to public backlash. As the Intergovernmental Panel on Climate Change (IPCC, 2022) and a growing literature on policy backlash (Alter & Zürn, 2020; Patashnik, 2023; Patterson, 2023; Patterson, Kaiser, et al., 2026; Stokes, 2016) have warned, hard climate policies risk to be rolled back, weakened, or watered down after adoption which presents a significant and pressing concern for climate governance.

While the last decade has seen a notable turn towards industrial policy and green public investment as central instruments of decarbonization (Bhandary et al., 2021; Meckling et al.,

2017; Tagliapietra & Veugelers, 2020), effective reduction of emissions is, nonetheless, likely to continue to require coercive instruments (OECD, 2025b). The renewed scholarly attention to strategic state action (exemplified, for instance, by the U.S. Inflation Reduction Act, the European Green Deal Industrial Plan) has put new ideas on the table about how to decarbonize at scale: by creating new markets, reshaping supply chains, and directing investment into green industries rather than relying primarily on cost-imposing instruments (Bang, 2025; Veugelers et al., 2024). The argument advanced here does not dispute the importance of this development. Green investment, voluntary measures, information campaigns, and subsidies retain their place in the policy mix, but the rate and depth of decarbonization now required cannot plausibly be delivered by such soft instruments alone (Eskander et al., 2021; Roelfsema et al., 2020). Understanding public responses to hard climate policy (especially those that are contentious) therefore remains an important task even as the policy frontier expands.

Among different forms of public contestation (e.g., expressed through mobilization, protest, electoral pressure, adversarial campaigning, or legal challenge) (McAdam et al., 2000, 2009), this thesis focuses on backlash, that is, a sub-category (Figure 1.1) distinguished from milder forms of contestation by three features: its abruptness (it emerges rapidly rather than developing gradually), its forcefulness (it involves substantial mobilization rather than only sentiment), and its reversal-orientation (it seeks to undo the policy rather than only to register dissatisfaction) (Patashnik, 2023; Patterson, 2023). The distinction between contestation and backlash matters because different forms of contestation have different policy implications, and conflating them produces analytical confusion and policy advice calibrated to the worst case rather than to the actual case at hand. Studying public backlash in this scoped way as a phenomenon with its own dynamics, its own conditions, and its own consequences for policy is therefore a distinct and necessary research task.

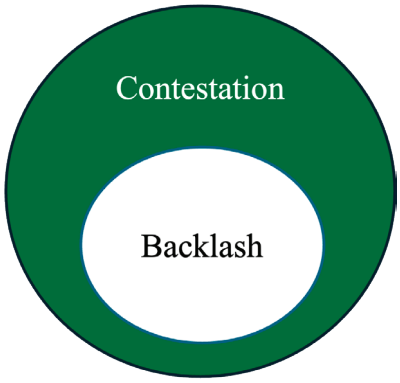


Figure 1.1. Backlash as a specific sub-category of contestation.

Public backlash can stall, weaken, or reverse policies over time whose effectiveness depends on durable implementation (Patashnik, 2008, 2023; Patterson, 2023). The concern that policy reform is vulnerable to post-adoption reversal is, of course, not new: Patashnik's (2008) landmark study of reforms at risk demonstrated that sustained implementation requires the continuous reproduction of supportive coalitions, institutional anchoring, and political insulation from organized opposition. Adjacent literatures have made related points from different angles. Social acceptance research, particularly on energy infrastructure, has emphasized that public reception evolves through implementation rather than being fixed at the point of adoption (Wüstenhagen et al., 2007). Policy studies and policy feedback scholarship in particular have shown that adopted policies generate their own constituencies, resources, and interpretive frames that can either consolidate or undermine the policy over time (Jordan & Matt, 2014; Lockwood, 2022). While these studies provide helpful insights into sustained implementation and acceptance, the specific phenomenon of public backlash that arises after adoption remains under-examined.

Public backlash challenges the conventional understanding of policy adoption as the closure of political debate (Zittoun, 2014, p. 169). The classical policy cycle (Knill & Tosun, 2020, p. 7) treats adoption as the moment when contention subsides and implementation takes over, but the hard climate policy domain increasingly resists this temporal logic. Costs that were hypothetical at the moment of adoption become concrete when implementation begins; political coalitions that supported a policy at adoption may shift in subsequent electoral cycles; new contextual events (energy price spikes, economic crises, populist mobilizations) may reactivate latent opposition; and policies that initially passed below the threshold of public attention may become objects of contention as their effects become visible (Bergquist et al., 2020; Mildenberger et al., 2022; Patashnik, 2019; Patterson, 2023; Stokes, 2016). These dynamics mean that the post-adoption phase, far from being politically settled, is often where the political fate of a policy is actually decided, hence, it needs to be thoroughly examined.

Currently, the ex-ante perspective dominates the field of studies of public attitudes and preferences (Bergquist et al., 2022; Dechezleprêtre et al., 2022; Drews & Bergh, 2015; Kyselá et al., 2019). Ex-ante surveys and stated-preference experiments have produced rich findings about the determinants of climate policy support: cost burden, perceived fairness, climate concern, political trust, and revenue use, among others (Carattini et al., 2018; Dechezleprêtre et al., 2022; Maestre-Andrés et al., 2019; Mildenberger et al., 2022). Yet acceptance measured before adoption captures only part of the story. Ex-ante measures are vulnerable to the principle-implementation gap (Krosnick & MacInnis, 2013), that is, between abstract support for climate action and concrete opposition to specific instruments; to discrepancies between stated and actual preferences stemming from distinction between willingness to support climate policy and willingness to pay for it (Bakaki & Bernauer, 2017; Dechezleprêtre et al., 2022), and to the dynamic re-shaping of public opinion that occurs once a policy moves from proposal to lived reality (Heyen & Wicki, 2024). In short, hard climate policies might

be supported in principle but as soon as the associated costs become tangible, these policies are most likely to generate public contestation (Kallbekken, 2023).

While the existing studies focus on the determinants of acceptance and support, contestation in general and backlash specifically cannot be approached as the simple inverse of acceptance and support. The implicit assumption in much of the public opinion literature is that contestation is what acceptance is not, that is, explaining acceptance is therefore enough. But the empirical record shows that the same policy can elicit acceptance from a quiet majority and backlash from an organized minority (Stokes, 2016); that contestation can arise where ex-ante surveys may have suggested support (Dechezleprêtre et al., 2022; Douenne & Fabre, 2019); and that the conditions producing contestation may be configurationally distinct from those producing acceptance. Therefore, a literature dominated by insights into support and acceptance cannot, on its own, explain the post-adoption contestation that increasingly worries climate policymakers.

Overall, despite its growing salience, public backlash to hard climate policies is poorly understood as a phenomenon, for example, its prevalence, its drivers, and its implications for policymaking. We do not have systematic comparative evidence on how prevalent backlash actually is, neither do we have clear accounts of the conditions under which such form of contestation arises. Similarly, we do not have empirically grounded answers to the question of when backlash translates into policy failure and when it does not. And we have only thin evidence on what practitioners who have experience with contestation-prone policies actually think can be done about it. Yet having mass publics on board — or at least not actively against — is a precondition for the sustained implementation that effective climate policy requires (Kyselá et al., 2019; Rhodes et al., 2017; Stadelmann-Steffen & Dermont, 2021; Umit & Schaffer, 2020).

1.2 EXISTING RESEARCH

Three larger bodies of literature directly inform the study of public backlash, where each with a sub-field that engages most closely with this phenomenon under investigation, that is, the focus of this thesis (Figure 1.2). Public acceptance and support scholarship (within political sociology) examines how mass publics respond to climate policy. Contentious climate politics literature (within climate politics more broadly) examines the dynamics of policy contestation in the climate domain. Policy process and policy design literature (within policy studies) examines how policies move through stages of formulation, adoption, and post-adoption, and how design features shape policy outcomes. Each of these literatures captures part of the puzzle, but none in isolation captures the whole; bringing them into sustained contact is one of the conceptual tasks this thesis takes up.

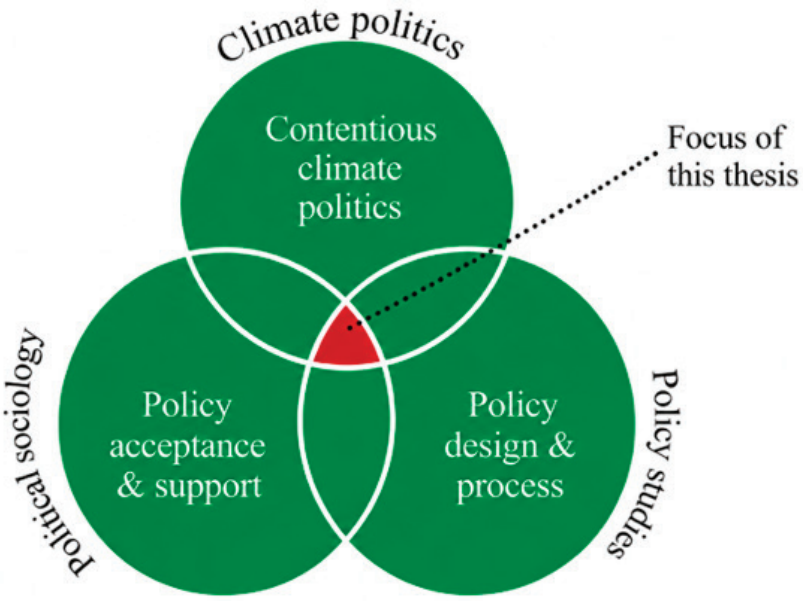


Figure 1.2. Situating backlash within the related literature fields.

1.2.1 Public acceptance & support scholarship: foregrounding the role of mass publics in climate policy

The role of mass publics in policymaking has long been a central concern of political sociology, broadly defined as "the social circumstances of politics, that is, to how politics both is shaped by and shapes other events in societies" (Orum, 1983, p. 1). In particular, the work of social movement scholars focuses on how collective action shapes (or fails to shape) policy outcomes (and vice versa). McAdam, Tarrow, and Tilly's foundational work on contentious politics (2000; see also McAdam & Tarrow, 2010) developed an analytical vocabulary for studying mass publics as political actors whose mobilization can be consequential for the trajectory of policy under certain conditions. This insight matters for climate policy because climate action (and especially through hard instruments) is unusually demanding of public consent: the costs are visible and felt, while the benefits are diffuse and deferred, so policy depends on a public attitude that is at minimum tolerant and at best supportive (Wallner, 2008). The role of mass publics in climate policy is therefore not a peripheral concern but a central one — and the conditions shaping distinct forms of public responses are core questions of climate governance.

Public response here refers to the aggregate behavioral and sentimental response of mass publics to a specific adopted policy at the level of the political community, encompassing both individual attitudes and collective expressions of those attitudes. This formulation draws on the distinct but complementary works of Wüstenhagen et al. (2007), Dermont

et al. (2017), and Batel et al. (2013), who argue for understanding policy acceptance as a process involving multiple actors at multiple stages, rather than as a static individual-level attribute. The thesis treats public response as encompassing both sentiment (the presence or absence of disapproval) and behavior (the presence or absence of mobilization), following the typology developed in Chapter 3. The focus on mass publics (as distinct from interest groups, political elites, or organized social movements) is justified because mass publics are the actors whose consent and authorization public policy ultimately depends on in democratic settings (Wallner, 2008). While organized actors play important roles in shaping public response (industry can amplify discontent, political parties can frame policy, media can drive salience), mass publics are not reducible to these actors and their distinctive role in policymaking (as explained by the literature on policy acceptance and support) is the central concern of the thesis.

Public responses (also encompassing public attitudes and preferences) have been studied principally through ex-ante survey research and stated-preference experiments (Bergquist et al., 2022; Heyen & Wicki, 2024; Kyselá et al., 2019). This work, ranging from individual-country studies (Douenne & Fabre, 2020; Hammerle et al., 2021) to systematic reviews (Bergquist et al., 2022; Drews & Bergh, 2015) and large multi-country surveys (Dechezleprêtre et al., 2022), has produced a substantial body of evidence on the determinants of climate policy support. The methodological dominance of ex-ante designs is striking: a recent overview by Heyen and Wicki (2024) notes that the overwhelming majority of climate policy attitude studies employ surveys or experiments conducted before policy adoption. The combined finding from this literature is that policy support varies systematically with cost burden, perceived fairness, revenue use, climate concern, political trust, and individual-level demographic and ideological characteristics (van den Bergh et al., 2021; Bergquist et al., 2022; Carattini et al., 2018; Maestre-Andrés et al., 2019; Rhodes et al., 2017). This work has produced a rich catalogue of factors that shape climate policy attitudes, and it has been broadly successful at the analytic task it set itself: that is, explaining variation in stated support for proposed policies.

The limits of this approach for explaining post-adoption dynamics, however, are increasingly difficult to ignore. As mentioned above, ex-ante measures cannot capture the implementation gap (Krosnick & MacInnis, 2013) by which abstract support for an outcome translates poorly into concrete support for a policy; they cannot register the dynamic reshaping of opinion that occurs once costs become tangible (Kallbekken, 2023); and they tend to measure factors at the individual level when the phenomenon they aim to explain – contestation and backlash specifically — is generated through social interaction at the level of political community (Abrams et al., 2022). They also create what Heyen and Wicki (2024) term "artificial environments with low external validity", in which respondents make choices abstracted from the political and economic contexts that shape real-world reception. A literature built principally on ex-ante methods provides a substantial but incomplete picture: it tells us much

about the conditions under which a policy might be supported in principle, and rather less about the conditions under which it is actually contested in practice.

1.2.2 Contentious climate politics: explaining why climate policy is at times hard to implement

The field of climate politics has its own substantial body of research, and its two broad themes are of particular importance for understanding contentious public responses. The first is institutional and coalitional: how political systems, party systems, electoral arrangements, and interest-group constellations influence what climate policy gets adopted and what it looks like (Andersen, 2019; Finnegan, 2022; Lipscy, 2018; Lockwood, 2022; Mildenberger, 2020). The second is the politics of polarization and partisan competition over climate, which examines how climate has become an axis of ideological and affective division in many democracies and how this division shapes policy possibilities (Birch, 2020; Flores & Barclay, 2016; Hutter & Weisskircher, 2023; Riera & Madariaga, 2023; Tranter & Lester, 2017). Hence, two findings from this field are particularly important for the puzzle of public backlash.

First, for instance, Mildenberger's (2020) comparative analysis of carbon pricing in the United States, Australia, and Norway shows that the political fate of adopted climate policy is shaped not only by aggregate public preferences but by the embedded structure of fossil-fuel-dependent interests within left- and right-leaning coalitions alike, which can generate sustained pressure for weakening or repeal long after adoption. Lockwood's (2013, 2018, 2022) work, drawing explicitly on the policy feedback tradition, argues that adopted climate policies create their own constituencies of supporters and opponents whose interaction over time determines whether the policy is locked in or eroded, with affected groups (e.g., energy-intensive workforces, peripheral regions, low-income households) playing a structuring role in the post-adoption period. Together these accounts identify part of the explanatory architecture for this thesis: post-adoption contestation is shaped by the interaction between policy design and the coalitional and feedback dynamics it sets in motion.

Second, the literature on polarization and partisan competition, has documented how climate has become an axis of ideological and increasingly affective division in many democracies, with consequences that extend well beyond the adoption decision (Birch, 2020; Ellger, 2024; Iyengar et al., 2018). Ideological polarization shapes which policy designs are politically feasible and which become focal points for partisan mobilization; affective polarization, in which opposition to climate policy becomes bound up with identity-based hostility to other political groups, can make even technically modest instruments politically costly. The implications for policy, as the more recent literature suggests, run less through changes in stated support and more through how issues become "sorted" into partisan camps, how new policy designs (e.g., bundling with redistributive measures, investment-led approaches (Bang, 2025)) can sometimes cut across these divisions, and how contestation can become

path-dependent once polarization is established. Both strands have produced sophisticated accounts of why climate policy is hard to implement and why specific designs prevail over others, particularly in highly polarized democracies like the United States and Australia. This literature offers a strong context-side explanation of climate policymaking: it contributes to explaining why climate policy looks the way it does in particular jurisdictions (Finnegan, 2022).

Within this broader field, a more specific sub-literature has emerged on contentious climate politics which foregrounds the analysis of policy backlash, a distinct phenomenon of post-adoption policy challenge involving negative response to a policy, driven by actors who mobilize quickly through formal institutions and/or informal channels (Patashnik, 2019; Patterson, 2023). Such reactions may take the form of voting behavior (Stokes, 2016; Stutzmann, 2025), mass mobilization and protest (Patashnik, 2023; Temper et al., 2020), adversarial political or media campaigns (Crowley, 2021), or legal contestation (Stacey, 2021). Backlash can be understood either as an endogenous reaction to the characteristics of public policies, where shifting political conditions generate incentives for mobilization (Patashnik, 2023, p. 5); or as a broader socio-political response arising when policies are misaligned with their context and fail to meet the needs, preferences, or beliefs of affected groups (Patterson et al., 2025). The contentious climate politics literature has, in this respect, opened the analytical space within which the present thesis is situated: it has identified the phenomenon, explored its manifestations, and made the case for taking it seriously as a research object in its own right.

Two gaps persist, however. First, the literature on contentious climate politics is overwhelmingly dominated by single or small-N case studies (with the United States, Australia, and France particularly heavily represented), which leaves uncertain the prevalence and patterns of contestation across the broader population of hard climate policies (Dreyer & Walker, 2013; Fairbrother, 2022; Ziegler, 2017). Second, while the literature offers strong context-side explanation (institutional configurations, partisan dynamics, media ecosystems), the policy-content side — what features of policy design make a policy more or less prone to contestation, and how design and context interact — is comparatively under-developed (Ejelöv & Nilsson, 2020; Heyen & Wicki, 2024). Patashnik (2023), Patterson (2023), and Lockwood (2013) all point at this interaction, but systematic comparative evidence on how policy content and policy context jointly produce contestation is scarce. Patashnik's (2008) book-length analysis is particularly important here: it not only theorizes the conditions under which adopted reforms become entrenched or unravel, but devotes a closing chapter to the implications for policymakers seeking durable reform. His subsequent work (2019, 2023) extends the argument by foregrounding the political logic of post-adoption challenge and offering one of the more explicit accounts of what policymakers and analysts can take from this. Building on these foundations, the result is a literature that has done much to put contestation on the agenda but has yet to provide a configurational account of

the conditions under which it occurs across hard climate policy as well as the implications it entails for policymaking.

1.2.3 Policy process and policy design: understanding dynamic and static aspects of policy

Two further bodies of work, drawn from policy studies, speak to the research problem. The first concerns the policy process itself: the temporal structure of policymaking from agenda-setting through formulation, adoption, implementation, and evaluation. While much policy process scholarship focuses on the early stages of the cycle, an increasingly active strand examines the post-adoption phase: the political dynamics of policy implementation, the conditions for policy durability, the relationship between policies and the contexts in which they operate, and the assessment of policy outcomes including success and failure (Howlett, 2012; Jordan & Moore, 2020, 2023; McConnell, 2010a, 2015; Thalmann & Baranzini, 2006a). McConnell's (2015) framework for analyzing degrees of policy success and failure across process, programmatic, and political dimensions is particularly relevant for the present thesis, as it offers a systematic vocabulary for evaluating policy outcomes.

The policy process literature provides the analytical vocabulary needed to assess contested policy outcomes, that is, moving analysis beyond the question of 'why backlash occurs' to the question of 'what implications backlash has for policymaking'. For example, by focusing on concepts such as policy change (e.g., Berglund et al., 2022; Hall, 1993; Bennett & Howlett, 1992), policy feedback (e.g., Béland, 2010; Béland & Schlager, 2019; Jacobs & Weaver, 2015), agenda-setting (e.g., Cairney & Jones, 2016; John, 2003; Zahariadis, 2007), implementation (Sabatier, 1986; Matland, 1995), and policy dismantling (Jordan et al., 2013; Pierson 1994), this literature enables analysis to move beyond studying the nature of backlash and its drivers to examine what consequences backlash has for a broader policymaking process. In this way, backlash can be understood not merely as a political reaction, but as a force that shapes policy trajectories, influences decision-making processes, and alters the substance and direction of public policy.

The second body of work concerns policy design itself: for example, the choice of instruments, the specification of design features, and the relationship between design and outcome. Salamon's (2001) influential typology of policy instruments, and the approaches that followed (Bemelmans-Videc et al., 2010; Howlett & Cashore, 2009; Howlett & Rayner, 2007), provide the analytical scaffold for distinguishing instrument types (including the hard/soft distinction central to this thesis). A growing literature on design features — for example, stringency (Botta & Koźluk, 2014b; Schaffrin et al., 2015), gradualism and sequencing (Meckling et al., 2017; Pahle et al., 2018), revenue redistribution (Mildenberger et al., 2022), and revenue earmarking (Baranzini & Carattini, 2017; Kallbekken & Aasen, 2010) — examines how specific design choices shape policy outcomes including public reception. Rather than treating policy instruments as fixed, uniform devices, this literature

posits that the details of policy design can substantially influence both policy effectiveness and political viability (Stechemesser et al., 2024). For example, more stringent measures may achieve greater environmental benefits but can also generate stronger opposition (Konc et al., 2022), while gradual implementation and carefully sequenced reforms may ease adjustment costs and increase acceptability (Montfort et al., 2023; Leipprand et al., 2020). Similarly, the redistribution or earmarking of revenues can affect perceptions of fairness, trust in government, and willingness to support a policy (Beiser-McGrath & Bernauer, 2019; Klenert et al., 2018). Consequently, policy outcomes depend not only on the type of instrument selected but also on how that instrument is designed.

Two implications follow for the present thesis. Substantively, policy design scholarship offers the design-side complement to the broader context-side analysis present in contentious climate politics (including political institutions and elite coalitions), and a starting point for the configurational analysis the present thesis develops. Methodologically, however, it remains weighted towards single/small-N or single-feature studies (e.g., revenue use, stringency), with limited systematic engagement with how multiple design features combine with contextual conditions to shape post-adoption reception across a wider sample, that is, precisely the analytical move this thesis undertakes.

1.2.4 Synthesis: zooming in on public backlash

The three literatures favorably complement each other. Public acceptance scholarship recognizes that policy design and political context matter, but typically captures these as variables in individual-level survey models rather than as configurations operating at the level of the political community. Contentious climate politics scholarship recognizes that policy design matters, but its case-based methodology has not yet generated systematic comparative evidence on how design and context combine. Policy process and policy design scholarship offer the conceptual vocabulary for both (e.g., instrument types, design features, post-adoption dynamics, success/failure) but these resources have only partially been brought to bear on the specific puzzle of post-adoption contestation in the climate domain. Bringing these three literatures into sustained contact is what the thesis sets out to do, and what motivates the four-empirical-chapter structure described in Section 1.5.

1.3 RESEARCH GAPS

Four specific gaps are evident from the existing research discussed above, each of which structures one of the four empirical chapters comprising this thesis. Together they cover the descriptive, explanatory, evaluative, and policy dimensions of public backlash to hard climate policy. First, the field lacks systematic medium-N evidence on the prevalence of backlash across hard climate policies, leaving the empirical baseline against which any explanatory or normative claim should be assessed largely unmapped (Heyen & Wicki, 2024). Second,

the literature treats the conditions producing backlash in a partial way: it has rarely brought policy-content conditions (design features) and context conditions (institutional, political, and societal factors) together within a single analytical frame, and where both are considered, they are typically treated as additive variables rather than as configurations, missing the conjunctural causation through which policy content and policy context interact (e.g., Ejelöv & Nilsson, 2020). Third, the relationship between backlash and policy failure is asserted but not systematically examined, leaving open the question of how we can determine when contested policies actually fail and when they succeed (McConnell, 2010b, 2010a, 2015). Fourth, a practitioner perspective on contestation and backlash specifically — what experts who have experience with contested policies actually think the problems are and what can be done about them — is largely missing from the literature, despite its centrality for policy learning (Dunlop et al., 2024; Hoppe, 2010). Each gap is addressed through a distinct analytical strategy, and each corresponds to one of the four empirical chapters in the thesis.

1.3.1 Gap 1: Prevalence of Public Backlash

The field lacks systematic medium-N evidence on the prevalence and patterns of public backlash. Existing scholarship has accumulated detailed case-based knowledge of high-profile episodes (e.g., France's Yellow Vests (Driscoll, 2023; Martin & Islar, 2021), Australia's carbon tax repeal (Bailey et al., 2012; Crowley, 2017), Germany's coal-phase-out controversies (Haas et al., 2022; Radtke & David, 2024)), but it has not yet produced a comparative baseline assessment of how prevalent contestation actually is across the broader population of hard climate policies in OECD countries (Heyen & Wicki, 2024). This empirical gap matters because, in its absence, the most visible cases come to dominate inferences about the phenomenon as a whole.

If backlash is, in fact, the modal post-adoption response to hard climate policy, the policy design implications differ fundamentally from those that follow if contestation is the exception. In the absence of prevalence evidence, "fear of backlash" can function as a de facto constraint on climate ambition (Patashnik, 2019; Patterson, 2023; Stokes, 2016), with policymakers calibrating policy ambition downward to avoid an outcome whose actual prevalence has not been measured. The missing systematic descriptive baseline that registers the full range of post-adoption public responses — from passive acceptance to outright backlash — across a defined population of policies is the gap Chapter 3 addresses.

1.3.2 Gap 2: Configurational Drivers of Public Backlash

Public acceptance scholarship and climate politics research treat policy content and policy context as separable explanatory factors, but contestation arises at their interplay. Survey-based public acceptance research typically estimates the independent effect of design features (e.g., revenue use, magnitude of costs) and contextual factors (e.g., political trust, climate concern) on individual-level support, modelling them additively as variables in regression frameworks (Dechezleprêtre et al., 2022; Kyselá et al., 2019). This methodological

approach has analytical strengths but a structural limitation: it cannot capture the configurational logic by which the same design feature produces different outcomes in different contexts, or by which the same contextual factor produces different outcomes for different designs. The result is a literature that knows a great deal about what predicts support on average and additively and considerably less about which combinations of conditions produce contestation and backlash specifically.

Four interrelated sub-gaps follow from this. First, there is limited clarity on which conditions are relevant at the post-adoption stage as opposed to the ex-ante stage: the determinants of stated support need not be the determinants of realized contestation (including backlash) (Heyen & Wicki, 2024; Krosnick & MacInnis, 2013). Second, the literature has rarely brought policy-design conditions and context conditions into the same analytical frame, despite their interaction being the locus where backlash arises (Lockwood, 2013, 2018; Mildenberger, 2020; Patashnik, 2008). Third, the contextual conditions that are studied tend to be operationalized at the individual level (trust, climate concern, ideology), whereas contestation is a social and interactive phenomenon involving polarization, coalition-building, and the dynamic interpretation of policy across publics (Abrams et al., 2022; Hutter & Weisskircher, 2023). Fourth, even where conditions are jointly considered, they are typically treated as additive rather than configurational (Ejelöv & Nilsson, 2020). Addressing public backlash therefore requires not only a configurational approach but one that integrates design and context, takes social-level conditions seriously (Ragin, 2009), and is anchored in the post-adoption stage — the analytical step Chapter 4 undertakes through fuzzy-set Qualitative Comparative Analysis.

1.3.3 Gap 3: Backlash and Policy Failure

Understanding how backlash relates to policy failure is crucial, since the former might not be as destructive as it is often perceived to be. Backlash is widely treated, explicitly or implicitly, as an indicator of policy failure: where backlash occurs, the policy is presumed to have gone wrong (Bovens & Hart, 2016). Yet this equation is more often asserted than examined. Empirically, it can be observed that backlash may lead to diverse outcomes ranging from outright policy reversal (e.g., Australia's Carbon Pricing Mechanism (Crowley, 2021); Ontario's wind farm development (Stokes, 2016)) to policy weakening (e.g., France's Carbon Charge Component (Driscoll, 2023); South Korea's ETS (Barlaup & Biedenkopf, 2024)) to policy strengthening (e.g., Germany's Coal Exit Law (Haas et al., 2022)) to no substantial policy change (e.g., British Columbia's carbon tax (Karapin, 2020)).

The result is a literature that holds two views of backlash in tension. On one hand, backlash can be read as a problem to be addressed as it puts policy viability in question (Bovens & Hart, 1996, 2017); on the other, backlash can be approached as one moment in a broader post-adoption trajectory whose outcome cannot be inferred from the contestation alone (McConnell, 2010a, 2010b, 2015). The full distribution of outcomes following backlash

across hard climate policies has not been systematically mapped, and when backlash actually leads to failure rather than to adaptation or reinforcement remains unclear. Without a more nuanced analysis of the backlash-failure relationship, the policy implications of backlash will continue to be inferred from worst-case assessments rather than from comparative evidence on actual outcomes. Chapter 5 addresses this by disentangling the complexity of understanding multiple ways in which a policy might fail and the degree to which this occurs, and the implications for evaluating the consequences of backlash across the backlash cases identified in Chapter 3.

1.3.4 Gap 4: Reflexive policy-related insights

Policy experts familiar with contestation-prone climate policies hold specific reflections on what contestation is a problem of and what action can be taken in response, but these reflections rarely enter the literature on their own terms. Scholars examining policy learning have long argued that practitioners accumulate forms of knowledge through engagement with cases (Dunlop et al., 2024; Hoppe, 2010) and the interpretive and reflexive currents in policy studies have made related arguments about the value of practical reasoning, frame-attention, and the dialogic relation between expert analysis and lived political experience (Schön & Rein, 1994; Wagenaar, 2011). Where policy experts' perspectives do enter climate policy research, however, they typically appear in one of two forms: as prescriptive advice from policy consultancies and international organizations, which tends toward generic best-practice recommendations detached from the configurational realities of specific cases (Craft & Howlett, 2013); or as quoted illustration within case studies, where experts feature as informants (Keele, 2019; O'Brien, 2013).

Yet the practical experience of analyzing contested climate policies and reflecting on public responses contains a kind of knowledge that survey instruments cannot easily fully capture: how problems are diagnosed in real time, which design and context features practitioners attend to, what action they see as available and worth pursuing, and on what grounds. This knowledge sits between the epistemic perspective of formal expertise and the reflexive interpretation by policy experts of citizen perceptions. This requires careful elicitation of such reflections (treating policy experts as "problem brokers") and thorough thematic analysis of their input regarding the policy problems behind policy contestation and possible policy action points. Chapter 6 takes up this task through the structured interview method across the 16 jurisdictions of the sample.

1.4 RESEARCH AIM AND RESEARCH QUESTIONS

1.4.1 Research aim

The overall aim of this thesis is to empirically assess and critically reflect on public backlash to hard climate policies at the post-adoption stage by systematically characterizing, explain-

ing, evaluating, and learning from cases of public backlash to hard climate policies in OECD countries. This single aim runs across the four empirical chapters of the thesis: Chapter 3 characterizes the prevalence and patterns of public backlash; Chapter 4 explains the configurational conditions under which it arises; Chapter 5 evaluates its consequences for policy success and failure; and Chapter 6 distils the reflections of policy experts who have engaged with contested cases.

1.4.2 Overarching research question

Building on the four gaps identified above and guided by the research aim, the overarching question of this thesis is as follows:

> What conditions give rise to public backlash to adopted hard climate policies in OECD countries, and with what implications for climate policymaking?

This question situates public backlash as an object of inquiry and seeks to develop a descriptive map of its prevalence, an explanatory account of the conditions under which it arises, an evaluative assessment of its consequences for policy outcomes, and a practical account of what policy experts identify as needed for sustained climate policy.

1.4.3 Research sub-questions

The overarching question is decomposed into four sub-questions, each addressed by a specific chapter:

- Q1: How prevalent is public backlash to adopted hard climate policies in OECD countries?
- Q2: What are the conditions under which public backlash to hard climate policies arises at the post-adoption stage?
- Q3: When and to what extent does policy backlash lead to policy failure in climate change mitigation policy?
- Q4: How do policy experts problematize conditions of public backlash to hard climate policies, and what possible action points do they see as needed for policy viability?

The four sub-questions follow a deliberate analytical sequence (Figure 1.3): from the descriptive (prevalence), to the explanatory (drivers), to the evaluative (consequences for policy outcomes), to the policy-related (action points for future policymaking). Each connects to the others: the empirical map of backlash in Q1 establishes the cases on which the explanatory analysis in Q2 operates; the configurational explanation in Q2 identifies the conditions whose interaction Q3 problematizes; and the failure analysis in Q3 establishes the consequences that the action points in Q4 are designed to address. The four questions, taken together, are designed to provide a comprehensive analysis of public backlash — empirically grounded, configurationally explained, evaluatively assessed, and practically translated.

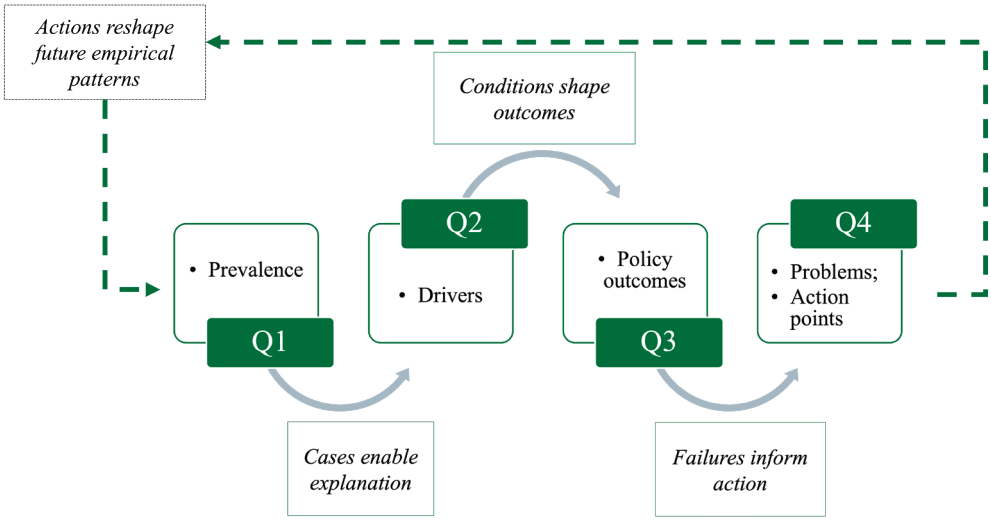


Figure 1.3. Interconnections between four empirical chapters of this thesis.

1.5 STRUCTURE OF THE THESIS AND CHAPTERS OVERVIEW

The thesis comprises this introduction, a chapter on research design, four empirical chapters, and a concluding chapter. Each empirical paper-chapter addresses one of the four sub-questions identified in Section 1.4 and corresponds to one of the four gaps identified in Section 1.3. Table 1.1 summarizes the empirical chapter structure.

Table 1.1. Overview of the thesis empirical chapters.

	Chapter 3	Chapter 4	Chapter 5	Chapter 6
Title	Public responses to hard climate policies in OECD member countries: prevalence of contention at the post-adoption stage	Unraveling the conditions for post-adoption contestation over hard climate policy in OECD countries	Contested but not failed: rethinking the relationship between backlash and policy failure in climate policy	Climate policymaking in times of contention: experts' insights into policy viability
Research question	How prevalent and varied are contentious public responses?	Under which conditions does public contestation occur at the post-adoption stage?	When and to what extent does backlash lead to policy failure?	How do experts problematize conditions for contestation, and what action points emerge?
Primary method	Systematic qualitative (media) content analysis	Fuzzy-set Qualitative Comparative Analysis (fsQCA)	Structured comparative case analysis	Deductive and inductive qualitative thematic analyses
Cases (n)	50 policy packages	27 policy packages	6 backlash cases	27 policy packages
Countries	21 OECD members	16 OECD members	6 OECD members	16 OECD members
Primary data	62 structured expert interviews	62 structured expert interviews	25 structured expert interviews	62 structured expert interviews

Table 1.1. Overview of the thesis empirical chapters. (*continued*)

	Chapter 3	Chapter 4	Chapter 5	Chapter 6
Secondary data	Newspaper articles policy documents; academic and grey literature	Media; datasets; policy documents; academic and grey literature	Policy documents; media; grey literature; academic papers	Policy documents; media; secondary literature
Key output	Typology of public responses; prevalence mapping	Solution pathways of conditions producing contention	Distinction from failure; positioning on a failure/success spectrum	Problematized conditions and corresponding policy action points

Chapter 2 (Methodology) provides overview of the research design of this thesis. it elaborates on the research strategy (overall approach and the set of methods employed throughout the empirical chapters) and the research material (case population, sampling frame, and data sources). Additionally, it explains the research planning providing details on sequencing of analytical steps, timing, and data.

Chapter 3 (Paper 1) establishes the empirical foundation of the thesis. Drawing on systematic media content analysis of 50 hard climate policy packages across 21 OECD member countries between 2009 and 2022, it develops a four-fold typology of public responses (support, acceptance, non-acceptance, backlash) based on the dimensions of disapproval and mobilization, and uses this typology to map the prevalence of contention. The chapter establishes that public backlash is the exception rather than the rule in the case sample studied, and that the most contentious responses cluster among carbon pricing/taxation policies and in the latter half of the study period.

Chapter 4 (Paper 2) moves from prevalence to conditions. Drawing on fuzzy-set Qualitative Comparative Analysis of 27 cases for which sufficiently detailed configurational data could be collected, supplemented by structured interviews with 62 experts and extensive secondary documentation, the chapter identifies the configurations of conditions under which contestation arises. It establishes that contestation is produced by combinations of conditions rather than by any single factor, with the combination of demandingness and unfairness as the core configurational explanation, joined in different cases by socio-political polarization, lack of climate change concern, and absence of information provision.

Chapter 5 (Paper 3) moves from drivers to consequences. Drawing on structured comparative case analysis of the six backlash cases identified in Chapter 3, using McConnell's adapted policy success/failure framework, the chapter examines the relationship between backlash and policy failure. It establishes substantial variation across cases in both the degree and form of failure, and argues that adaptiveness — rather than contestation-avoidance — is the central determinant of policy viability under conditions of backlash.

Chapter 6 (Paper 4) moves from consequences to policy implications. Drawing on deductive thematic analysis of structured expert interviews, the chapter elicits the reflections of policy experts acting as "problem brokers" interpreting public contestation. It identifies five problematizations of the conditions of contestation (policy unaffordability, asymmetric (re) distribution, mass publics' misperception, partisan capture, policy legitimacy) and through inductive analysis, it offers a repertoire of policy action points encompassing direct interventions and strategic orientations.

Chapter 7 (Conclusion) synthesizes the findings across the empirical chapters, reflects on the limitations of the design and the directions for further research that the findings open up, and returns to the practical question with which the thesis began: how to design and implement hard climate policy in democratic settings where contestation in general and backlash in particular may become a frequent occurrence in climate policymaking.

All supporting material is provided at the end of the thesis. This includes supplementary tables and figures, references, list of publications, acknowledgements, and my curriculum vitae.



Chapter II

Methodology and Research Design

The thesis uses a multi-staged medium-N comparative research design that combines four complementary methods across the four empirical chapters, sharing a common empirical sample to enable comparability. The chapters are therefore not parallel stand-alone studies but sequential analytical steps on a coherent empirical base. To specify, the prevalence analysis (Chapter 3) furnishes the case population on which the configurational analysis (Chapter 4) operates; the six backlash cases identified in Chapter 3 form the comparative material for the failure analysis (Chapter 5); and the structured interview corpus assembled in support of Chapter 4 is read through a different analytical lens in Chapter 6. The design is therefore additive, that is, each chapter draws on a subset of a single, coherently constructed population of cases, and cumulative, that is, each chapter taking the previous one's findings as its starting point. The following sub-sections explain the research strategy, the research material, and the research plan that produced it.

2.1 RESEARCH STRATEGY: OVERALL APPROACH AND SET OF METHODS

The thesis investigates public backlash to hard climate policies as a phenomenon with its own descriptive, explanatory, evaluative, and policy-related dimensions. To cover them, the overarching approach employs a case-based comparative logic of public responses to a medium-N set of policy packages. This analytical orientation runs across all four empirical chapters, and it has three implications for how each chapter's specific research design was chosen. First, sampling proceeds from a defined population rather than from cases selected for theoretical or empirical prominence; this rules out approaches that would sample on the dependent variable (e.g., selecting cases on the basis of the presence of contestation (Dupuis & Biesbroek, 2013)) and motivates the use of the Climate Policy Database (Nascimento et al., 2022) as a sampling frame in Chapter 3. Second, backlash as a type of public response is treated as a product of the conjunctions of conditions rather than as bundles of additively combined variables, which makes set-theoretic design using a fsQCA a natural fit for the research task of Chapter 4 (Schneider & Wagemann, 2012). Third, the structured comparative design used in Chapter 5 and the thematic analysis of Chapter 6 are motivated by the research need to understand better backlash implications for climate policymaking across different contexts (Palmberger & Gingrich, 2014).

Chapter 3 employs systematic media content analysis to detect post-adoption public responses across a sample of 50 hard climate policy packages in 21 OECD countries between 2009 and 2022. Newspaper coverage is used as a "master arena" (Gamson, 2004, p. 243) through which mass public responses become detectable and comparable across cases: relevant articles are interpretively coded along an operationalized typology of disapproval and mobilization, each measured on ordinal 0–3 scales, with conservative thresholds (≥2) applied to identify the presence or absence of each dimension and thereby place each case in one

of four response categories: support, acceptance, non-acceptance, or backlash. The strategic decision underlying this method (following McAdam & Boudet, 2012) is to take prevalence seriously as an empirical question to be answered, rather than as a background assumption inferred from emblematic cases; this in turn requires a sampling frame independent of the outcome and a coding instrument that can be applied consistently across the full sample.

Chapter 4 employs fsQCA to identify the configurations of conditions under which post-adoption contestation arises across a subset of 27 cases for which sufficiently detailed configurational data could be collected. Set-theoretic logic is well suited to the analytical task at hand for three reasons: it can accommodate conjunctural causation (combinations of conditions producing an outcome), equifinality (multiple causal pathways producing the same outcome), and asymmetry between the conditions for the outcome and the conditions for its absence (Ragin, 2009). The method is used here as both a research technique and a research approach (following Schneider & Wagemann, 2012): scoring and calibration are interpretively grounded in the case material, multiple solution types (conservative, parsimonious, intermediate) are compared rather than treated as substitutes, and subgroup analyses (pricing/taxation; regulation and phase-out) are run alongside full-sample analyses to test the robustness of the patterns observed. The five conditions analyzed — socio-political polarization, climate change concern, policy demandingness, policy unfairness, and information provision — were selected on theoretical grounds and refined through reflection on which conditions could be meaningfully and comparably measured across cases.

Chapter 5 employs structured comparative case analysis to examine the relationship between backlash and policy failure across the six cases of backlash identified in Chapter 3 (Australia, Canada, France, Germany, Mexico, USA). McConnell's policy success/failure framework (2015) is adapted to fit the analytical task: overlapping criteria are consolidated, criteria that are difficult to measure consistently are removed, a temporal criterion on the stability of policy trajectory is added, and the spectrum endpoints are re-labelled in more neutral and numerically tractable terms. Each case is then scored on ten criteria across three dimensions (process, program, politics); the scores are summed into an overall failure score with categorical thresholds, and the dimensions are disaggregated to reveal where failure does and does not occur. The strategic value of this method is that it permits systematic comparison across cases while retaining the interpretive depth needed to make sense of the highly heterogeneous outcomes the backlash cases exhibit; it also makes the evaluative judgment about success and failure explicit and procedurally transparent rather than left to narrative inference (Bovens & Hart, 2016).

Chapter 6 employs deductive-then-inductive thematic analysis of the structured interviews with 62 experts to elicit the problematizations of contestation that policy experts hold and the action points they propose. The thematic analysis approach (following Braun & Clarke, 2006) is implemented in three phases: a first deductive phase that codes the interview ma-

terial against the five conditions established in Chapter 4; a second inductive phase that identifies, within each coded condition, the specific tension experts articulate as the problem the condition produces (e.g., unaffordability as the problem of demandingness, asymmetric redistribution as the problem of unfairness); and a third inductive phase that maps the action points associated with each problem, retaining only those mentioned by at least six participants across at least two countries (i.e., roughly 10% of the interviewees and jurisdictions). The strategic decision underlying this method is to treat policy experts as "problem brokers" (Knaggård, 2015) interpreting public contestation rather than as sources of technical advice on policy content. The hybrid structured-interpretive logic mirrors the case-based comparative reasoning that runs across the thesis: structured at the level of questions to ensure cross-case comparability, interpretive at the level of analysis to retain the qualitative depth that the practitioner reflections warrant (Palmberger & Gingrich, 2014).

2.2 RESEARCH MATERIAL: CASE POPULATION, SAMPLING FRAME, AND DATA SOURCES

The empirical population analyzed in the thesis is hard climate policies adopted at the national level in OECD member countries between 2009 and 2022. Three boundary choices delimit this population. First, the policy-type boundary (hard climate policies comprising pricing/taxation, regulation, and phase-out instruments, as explained in Section 1.1) reflects the substantive interest of the thesis in coercive policies that impose costs or constraints on identifiable target groups (Patterson, 2023; Schulze, 2021). Second, the jurisdictional boundary (OECD member countries) reflects two considerations: OECD countries collectively account for the bulk of historical and current emissions and have adopted the most ambitious climate policy portfolios; and the OECD is institutionally heterogeneous enough to capture meaningful variation in political systems, policy styles, and contestation dynamics, including a number of members often described as developing economies (Chile, Colombia, Costa Rica, Mexico, Turkey) whose inclusion partially addresses the under-representation of Global South cases in the literature (Heyen & Wicki, 2024; Valencia et al., 2024). Third, the temporal boundary (2009–2022) brackets the period between the Copenhagen Climate Summit and the year prior to data collection, spanning the 2015 Paris Agreement at roughly its midpoint and thereby capturing both pre-Paris and post-Paris policy waves; earlier policies were excluded because the political opportunity structure for climate contention differed before the late 2000s, and more recent policies because their post-adoption trajectories had not yet had time to unfold.

Within this population, cases are sampled from the Climate Policy Database (CPD) (Nascimento et al., 2022), an open-access repository of national climate policies maintained by the New Climate Institute, Wageningen University and Research, and the PBL (Netherlands

Environmental Assessment Agency). The CPD was chosen as the sampling frame for two reasons: it is the most comprehensive systematic inventory of national climate policies available at the time of data collection (Roelfsema et al., 2020; Steinebach et al., 2024); and using it allowed the sampling procedure to be detached from the outcome of interest (the presence or absence of contestation), thereby avoiding the selection-on-the-dependent-variable problem that has shaped much of the existing case-based literature (Dupuis & Biesbroek, 2013). The sequential selection procedure used in Chapter 3 — screening for hard policy instrument types, restricting attention to two highly relevant sectors (general framework policies, and energy and heat), filtering for policies that impose costs on mass publics, and consolidating closely related policies into policy packages (Anisimova & Patterson, 2024, 2025) — yields the master sample of 50 packages from which the subsamples for the other three chapters are drawn (27 cases for Chapter 4 after excluding cases that did not de facto impose substantial costs; six backlash cases for Chapter 5; and the same 27 cases for the interview corpus underpinning Chapters 4 and 6).

The thesis works with four main kinds of data, each with its own strengths and limitations, combined through triangulation to support the analytical judgments each chapter requires: newspaper data, structured expert interviews, secondary documentation (encompassing policy documents, grey literature, academic literature), and policy datasets:

Newspaper data. Chapter 3 relies centrally on newspaper coverage retrieved through the NexisUni database, with cross-validation via Factiva and additional open Google searches for cases with thin NexisUni coverage. Newspapers are used as the "master arena" (Gamson, 2004, p. 243) to showcase mass public responses: contestation that gains national resonance is, by design, likely to be reported in quality press of national scope. To ensure cross-country comparability, newspapers are selected case by case using the European Social Survey's media-landscape inventory supplemented by national newspaper analyses and expert consultation (Anisimova & Patterson, 2024); up to four newspapers per country (in two languages where multilingualism is relevant) are searched, deliberately avoiding the political extremes whose coverage quality is likely to decline due to political bias. The strength of this source is that it is publicly accessible, systematic, and consistent across cases. Its limitations are as follows: contestation that does not attract national press coverage (because it remains subnational, intra-sectoral, or otherwise off the media radar) may be under-detected; reporting may vary in tone and emphasis across outlets; and language gaps can shape what is and is not visible to a non-native reader. The mitigation strategy was to use multiple newspapers per country, to search in native languages with linguistically and contextually appropriate terms, to extend the time window beyond the immediate adoption period (up to six years from the policy decision for gradually implemented policies), and to cross-validate with Factiva and supplementary searches for cases with low coverage.

Structured expert interviews. Chapters 4, 5, and 6 rely centrally on structured interviews with 62 national policy experts, conducted between June 2023 and June 2024 (45-60 minutes on average, recorded and transcribed with participant consent). Interview participants were identified through two complementary strategies: snowball referral from earlier interviewees, which is effective for capturing well-networked policy communities; and desk-based mapping using public sources (policy committee rosters, press coverage, academic and policy documents), which mitigates the over-representation of particular networks inherent to snowballing. The combination yields a sample diversified across institutional positions and policy stances. The structured interview format — ten anchor questions supported by structured and spontaneous probing, with several open questions — was chosen deliberately for its comparability across the large jurisdictional and policy-package coverage of the sample; an unstructured or semi-structured format would have produced a corpus too heterogeneous for the cross-case comparison the design depends on. The trade-off is reduced flexibility for unanticipated themes, which was addressed by including open prompts and follow-up probing within each anchor question. The strength of this source is that it provides comparable, qualitatively rich, ground-truthed practitioner interpretations of policy reception and contestation. Its limitations are that three to six interviews per country is somewhat thin for fine-grained national claims; that the expert population over-represents publicly visible commentators and well-networked figures; and that what is reported is experts' interpretation of public perceptions rather than those perceptions directly. Cross-national breadth (16 jurisdictions) and convergence of themes across rather than within national contexts partly compensate for per-country thinness, and triangulation with media and documentary sources partly compensates for possible subjectivity in respondents' interpretations.

Secondary documentation. All four empirical chapters draw on secondary documentation as a triangulation source and, in places, as primary evidence in its own right. The materials include policy documents (legislation, regulatory texts, official communications), grey literature (think-tank reports, OECD and IPCC publications, evaluation reports), academic literature on specific cases. Secondary materials provide the contextual depth that interview and media data on their own would not deliver, particularly for cases that are less covered by media or less networked in international expert communities. Their main limitations are unevenness across cases — some jurisdictions are far better documented than others — and the variable quality and analytical orientation of grey-literature sources. The mitigation strategy is purposive sampling of secondary sources keyed to the specific analytical task at hand, rather than treating them as a uniform corpus.

Policy datasets. The CPD (Nascimento et al., 2022) and the OECD Climate Actions and Policies Measurement Framework (Nachtigall et al., 2024) serve a dual function in the design: as systematic inventories that delimit the relevant population of policies, and as sources for specific policy attributes (e.g., instrument type, sector, year of decision, stringency-related indicators). Their strength is the consistency they bring to the population definition and

to specific cross-case comparisons; their limitation is that they are themselves products of particular coding and curation decisions whose categorizations have to be screened and, in places, re-categorized for the purposes of this thesis (most visibly in Chapter 3's re-categorization of CPD instrument types to fit the hard/soft distinction).

The combined use of media data, expert interviews, secondary documentation, and datasets is not redundant but designed to triangulate across the limitations of each individual source. Each chapter draws on the combination of sources appropriate to its analytical task: Chapter 3 anchors on media data with secondary documentation as context; Chapter 4 anchors on interviews with experts, secondary datasets, and documents as supporting evidence; Chapter 5 anchors on a sub-sample of interviews with secondary documentation and case-specific media; Chapter 6 anchors on the full interview corpus with secondary materials providing the contextual scaffolding. Triangulation operates both within and across chapters: within each chapter, multiple sources converge on the analytical judgment; across chapters, the same underlying material is interrogated from different angles, with each chapter's analysis informing and constraining the others.

2.3 RESEARCH PLANNING: SEQUENCING OF ANALYTICAL STEPS, TIMING, AND DATA HANDLING

The four empirical chapters were designed and executed as sequential analytical steps. The first step (Chapter 3) constructs the empirical baseline by characterizing the prevalence and patterns of post-adoption public responses across the master sample. This step is logically prior to the others because it generates the case categorization on which the subsequent analyses depend: Chapter 4 takes the 27-case subset of the 50-case sample and asks which configurations of conditions produce contestation; Chapter 5 takes the six backlash cases identified in Chapter 3 and asks whether and how backlash translates into policy failure; Chapter 6 takes the full interview corpus assembled in support of Chapter 4 and reads it through a different analytical lens to elicit practitioner problematizations and action points. The sequencing is therefore from the descriptive to the explanatory, evaluative, and policy-related, with each step building on the empirical and conceptual outputs of the previous one.

Data collection proceeded in two main phases (Figure 2.1). The first phase (2022–2023) centered on the case-sampling work and media content analysis underpinning Chapter 3, including the iterative development of the search strategy, the construction of country-specific newspaper lists, the article retrieval and screening, and the interpretive coding against the disapproval-and-mobilization typology. This phase culminated in the published version of Chapter 3 and produced both the case categorization used downstream and the sample frame for the configurational and case-comparative work. The second phase (June 2023 -

June 2024) centered on the structured expert interviews, conducted with policymakers and policy experts across the 16 jurisdictions covered by the 27-case sample. The analysis of transcripts fed into the calibration of conditions in Chapter 4 and the scoring of failure criteria in Chapter 5.

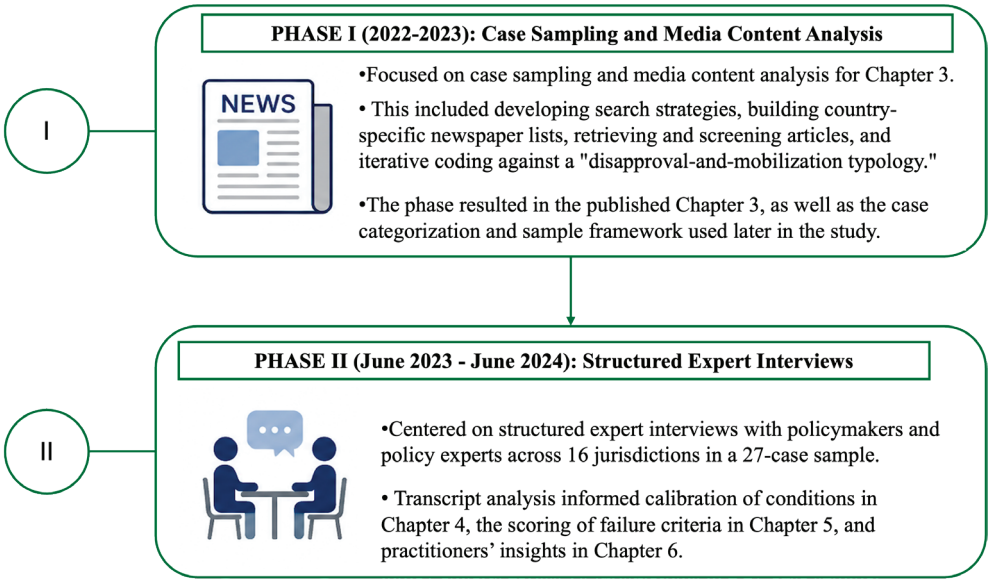


Figure 2.1. Data collection phases.

The plan was sequential at the level of chapter logic but iterative at the level of execution. Three forms of iteration were built into the design. First, within each chapter, measurement instruments and coding protocols were refined through pilot coding and reflection: a 10% pilot phase in Chapter 3; pre-tested anchor questions and follow-up probing in the interview protocol; iterative refinement of the fsQCA conditions and their calibration anchors in Chapter 4; consolidation and re-labelling of McConnell's criteria in Chapter 5. Second, across chapters, the findings of earlier work re-entered the design of later work: the typology of public responses from Chapter 3 became the outcome categorization for Chapter 4; the configurational findings from Chapter 4 became the thematic scaffold for Chapter 6; the cases identified as backlash in Chapter 3 became the case set for Chapter 5. Third, the analytical framing was itself refined throughout: for examples, the distinction between contestation and backlash, the move from durability to viability, and the shift from problematized conditions of backlash to policy action points.

The interview-based components of the design (Chapters 4-6) were approved by the Ethics Review Board of Utrecht University (Geo S-23000). All participants were informed of the purpose of the research, the use of anonymized quotations, and their right to withdraw at any point. Quotations are attributed using numbered participant codes, with institutional

affiliations withheld where these would risk re-identification. Security of primary interview data and privacy protection are ensured by adhering to the standards set by the European General Data Protection Regulation, and as approved by the Geosciences Ethics Review Board at Utrecht University.



Chapter III

Public Responses to Hard Climate Policies in OECD Member Countries: Prevalence of Contention at the Post-Adoption Stage[1]

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ABSTRACT

Effective climate action is likely to require hard climate policies (e.g., regulation, pricing, phase-outs), but such policies are often contested. Contention can arise not only during policy development and decision-making, but also at the post-adoption stage where adopted policies may be challenged, threatening policy durability. However, existing research has not systematically analyzed patterns of actual public responses to hard climate policies following their adoption. This is needed to understand response variety and the prevalence of contention. This chapter systematically assesses public responses in a sample of 50 national-level hard climate policy packages (covering framework and energy policies) across 21 OECD member countries between 2009-2022. The public responses are categorized using a typology (support, acceptance, non-acceptance, backlash) involving disapproval and mobilization to assess the prevalence of post-adoption contention among mass publics. The analysis draws on newspaper data specific to each case to detect contention. Findings reveal a relatively low prevalence of post-adoption contentious responses to hard climate policies. Nonetheless, contention is pronounced in some cases, and is mainly associated with carbon taxation/pricing although not exclusively. The most contentious responses, labeled as backlash, cluster in the latter half of the study period. Findings suggest a need to analyze drivers of contention among mass publics which may be complex and involve factors spanning policy design, institutional politics, and societal context.

3.1 INTRODUCTION

The volume of climate policies introduced in countries across the world has grown substantially over the last 10-15 years (Eskander et al., 2021; Nascimento et al., 2022; Roelfsema et al., 2020; Schmidt & Fleig, 2018). Policies range from hard (regulation, prices/ taxation, phase-out of technology or fossil fuel production) to soft (information campaigns, voluntary standards) (Schulze, 2021). Hard climate policy is often considered crucial for rapid and large-scale decarbonization but can be politically controversial because it involves distributing economic and social costs (Harrison & Sundstrom, 2010; Jordan & Matt, 2014; Patterson, 2023). Sometimes contentious public responses occur even after adoption, such as when costs become apparent or new challengers arise. Examples of contentious post-adoption situations include rollback of carbon pricing in Australia (2012-14), the Yellow Vests Protests in France (2018-19), and rollback of climate policy in Ontario, Canada along with provincial court challenges against national climate policy (2019-2020). This creates concerns about the risk of backlash or future rollback of climate policy (IPCC, 2022; Patterson, 2023). However, systematic understanding of actual patterns of public responses to hard climate policy after it is adopted is lacking.

Addressing this gap requires bringing together insights on policy acceptance and contention at the post-adoption stage of policy. Bourgeoning literature examines ex-ante determinants of public support for climate policy, either in general or for individual policies (Drews & van den Bergh, 2016; Bergquist et al., 2022; Dechezlepretre et al., 2022; Kyselá et al., 2019). However, expected patterns of support may not always correspond to actual (ex-post) public responses (Drews & van den Bergh, 2016; Bakaki & Bernauer, 2017; Dechezleprêtre et al., 2022; Douenne & Fabre, 2020), especially when costs are felt, political debates and struggles shift the meaning of policy, and external events change the impacts and prioritization of policy, for example. Moreover, actual public responses to climate policy remain understudied (Kallbekken, 2023). Scholars both within climate policy (Stokes, 2020; Jordan & Moore, 2020) and beyond (Patashnik, 2008) have observed that struggles over policy often continue after policy adoption. On the other hand, public support might increase following policy adoption as new policy becomes normalized (Kallbekken, 2023; Drews & van den Bergh, 2016). Hence, it is not necessarily clear which public responses may occur in response to specific hard climate policies, even though we might nonetheless expect the potential for discontent at the post-adoption stage.

This chapter therefore asks the question: How prevalent are contentious public responses among mass publics towards adopted hard climate policies? It systematically analyzes post-adoption public responses to hard climate policy in a sample of 50 policy packages across 21 OECD member countries between 2009-2022. By 'hard' climate policies[2] are defined

[2] Although, we also acknowledge that policies often come as a mix (Glaus, 2021; Howlett & Rayner, 2007).

as those that impose costs through "behavioral constraints or negative economic incentives" on policy recipients (Schulze, 2021, p.3) backed by the threat of sanction or force (Salamon, 2001). Three categories of hard policy instruments are considered: regulation (which imposes limits or constraints on certain forms of behavior), pricing/taxation (which imposes mandatory costs on certain behavior or activities), and phase-outs (which imposes mandatory shifts away from certain forms of technology or production) (Borrás & Edquist, 2013; Pacheco-Vega, 2020; Rinscheid et al., 2022). Post-adoption public responses are categorized using a typology spanning disapproval (present/absent) and mobilization (present/absent) to distinguish four possible public responses (backlash, non-acceptance, acceptance, support), drawing on systematically sampled newspaper data (newspapers of quality) in each country. Findings reveal a relatively low prevalence of post-adoption contentious public responses to hard climate policies. When this does occur, it is mainly associated with carbon taxation/pricing, although not exclusively. The most contentious responses (i.e., backlash) cluster in the latter half of the study period, and the role of design features (e.g., gradual phase-in, redistribution) appears ambiguous.

Overall, this contributes to understanding the role of mass publics in shaping policy acceptance (Dermont et al., 2017; Ingold et al., 2019; Kammermann & Dermont, 2018) and durability (Jordan & Moore, 2020) by examining relatively near-term post-adoption public responses (up to three to six years from policy adoption) complementary to analysis of gradual policy feedback involving mass publics over longer timeframes (Mettler & Soss, 2004; Stadelmann-Steffen & Eder, 2021; Sewerin et al., 2020; Jacobs & Weaver, 2015). Evidence on the prevalence of different types of public responses to hard climate policies is provided using a medium-N set of cases (i.e., n=50, which reflects a middle ground between a small-n (e.g., n<5) or large-n (e.g., n>100) sample size). The findings are relevant for understanding both the supply side of climate policy regarding patterns of hard policy employed to date, and the demand side in terms of actual public responses, which can help to inform expectations for future policy action.

The chapter proceeds as follows: Section 3.2 explains how we delineate public responses and proposes a typology for studying them; Section 3.3 explains the methodology including case sampling, data collection, operationalization, and analysis; Section 3.4 presents the results; and Section 3.5 reflects on the findings within ongoing climate policy debates and identifies future research needs.

3.2 PUBLIC RESPONSES

3.2.1 Delineating Public Responses

This chapter focuses on public responses towards specific adopted climate policies, which encompasses both policy recipients and wider audiences within mass publics. Public responses

are an important aspect of the overall issue of policy acceptance which goes beyond only ex-ante public support (Batel et al., 2013; Wüstenhagen et al., 2007), and involves multiple actors (e.g., mass publics, political representatives, interest groups) and stages of a policy process (e.g., policy development, decision-making, adoption, implementation) (Dermont et al., 2017; Upham et al., 2015). The focus on public responses reflects a concern with what Wüstenhagen et al., (2007) term the socio-political dimensions of acceptance; that is, whether and how a new policy (which may involve new targets, rules, arrangements, or frameworks) is accommodated within a social and political unit. The present work builds on Dermont et al., (2017) in considering the post-adoption stage of policy which overlaps with, but is also distinct from, the implementation stage because post-adoption centers on public responses when policy becomes (or is slated to become) operational rather than on debates over how to bring a policy into operation per se. It aligns with a view of policy acceptance as a process (Wüstenhagen et al., 2007; Batel et al., 2013; Upham et al., 2015) because the post-adoption stage is part of the ongoing process by which acceptance extends over time beyond adoption.

The scope of policy acceptance analysis can include a wide spectrum of public responses ranging from highly negative (e.g., resistance, opposition) to somewhat negative (e.g., disagreement, concern) to ambivalent (e.g., indifferent, uncertain) to somewhat positive (e.g., acceptance, tolerance) to highly positive (e.g., support, affirmation) (following Dermont et al., 2017; Batel et al., 2013; Batel, 2018; Wolsink, 2018). The primary focus is on negative contentious public responses (both highly and somewhat negative responses which can threaten or undermine adopted climate policy), while also considering this wider spectrum. Contentious public responses may occur relatively immediately after a policy is adopted, such as outbursts of anger or criticism, potentially (but not necessarily) primed by prior debates, or it may occur later when a policy ramps up. Contention might also be triggered by organized interests such as industry seeking to foster discontent in the public arena (Mildenberger, 2020) through media or other campaigns. Contention can include negative sentiment among mass publics conveying disapproval, as well as behaviors demonstrating discontent such as protests, demonstrations, petitions, or other public actions.

3.2.2 Typology of Public Responses

This sub-section develops a typology to characterize mass public responses to hard climate policies. A focus on mass publics acknowledges their central role in policy acceptance and durability through both sentiment (i.e., the presence or absence of disapproval for a policy) and behavior (i.e., the presence or absence of mobilization in regard to a policy). Literature on public support for climate policy makes clear the need to consider sentiment towards a policy not only before but also after policy adoption (Bakaki & Bernauer, 2017; Kallbekken, 2023; Drews & van den Bergh, 2016; Dechezleprêtre et al., 2022), as the presence of widespread disapproval can strengthen opponents or even undermine support from proponents due to public criticism (Crowley, 2021; Patterson, 2023; Mildenberger et al., 2022). Litera-

ture on social movements makes clear the need to consider contentious behavior involving mass publics as key claimants, alongside institutional actors (political parties, interest groups) (McAdam et al., 2001). This can include both organized and spontaneous activities (such as protests, strikes, campaigns, or other expressions of discontent) in the public sphere with "manifestly [public] political ramifications" rather than "claim making that occurs entirely within well-bounded organizations" (McAdam et al., 2001, p.5). Scholars in climate and energy policy increasingly observe contentious behavior as important regarding climate policy (Sovacool et al., 2022; Temper et al., 2020; Driscoll, 2023; Gulliver et al., 2021; Jerolmack & Walker, 2018).

Considering both sentiment and behavior can help to distinguish different types of public responses. This not only reflects the potential for a wide spectrum of public responses as argued by policy acceptance scholars, but also helps to structure empirical analysis of these responses by categorizing them according to underlying dimensions; that is, the presence/absence of disapproval (sentiment) and the presence/absence of mobilization (behavior). Moreover, this also helps to connect policy processes (specifically, at the post-adoption stage) with contentious action which is a persistent gap observed by both policy-oriented and social movement scholars (Hacker & Pierson, 2014; McAdam & Tarrow, 2010; Tarrow, 2022). Doing so is important given growing experiences of mobilization for and against climate policy. Mobilization demonstrates a stronger signal than disapproval alone and could thereby have distinct consequences for policy acceptance and durability.

On this basis, a typology to empirically categorize public responses is visualized by Figure 3.1. Contentious public responses involve substantial disapproval over a policy among mass publics but vary as to whether this extends to mobilization or not. A response of 'non-acceptance' involves the presence of disapproval but with an absence of mobilization, suggesting some contention but not severe enough to motivate behavioral responses against the policy. This involves criticism and/or opposition (and other forms of conflict inherent to the policy process (Ingold, 2011)) which could dissipate over time and transition into acceptance or conversely could lead to policy undermining later. A response of 'backlash' involves the presence of disapproval combined with the presence of mobilization against the policy, suggesting substantial contention affirmed through behavioral dissent. This could involve protests and demonstrations as well as other forms of non-compliance or resistance by a substantial number of policy recipients, and/or possibly further challenges against the policy (Patterson, 2023; Stokes, 2016). On the other hand, a response of 'acceptance' involves the absence of disapproval also with an absence of mobilization, suggesting little or no contention. This indicates that a policy is accommodated through either active compliance (Dermont et al., 2017), or passive acceptance such as when policy recipients are not concerned about, or perhaps even aware of, a policy.

While scholars have convincingly argued that acceptance should in principle be intentional rather than merely by default (Dermont et al., 2017; Batel et al., 2013; Upham et al., 2015), nonetheless this simplifying assumption is made here because the core focus is on whether policy is challenged following its adoption (in other words, the anchor is the presence/absence of disapproval). If policy is not challenged, then the net result is acceptance of the policy, although in the empirical approach (Section 3.3) it is specifically allowed for the possibility that contention is delayed and thus do account for situations where initial passive acceptance is superseded by contention. On the other hand, affirmative responses through the final category of support are also distinguished. A response of 'support' involves the absence of disapproval (which could also be evident directly through signs of approval) combined with the presence of mobilization oriented positively towards the policy. For example, this could include demonstrations or other activities taken by mass publics in support of a policy (Gulliver et al., 2021). While this category necessitates some further interpretation in empirical analysis given the logic of the typology, it is nonetheless distinct from acceptance as it asserts a stronger positive stance towards the policy, and from backlash as it affirms an adopted policy rather than challenges it.

		Mobilization	
		Absent	**Present**
Disapproval	**Absent**	Acceptance	Support
	Present	Non-acceptance	Backlash

Figure 3.1. Typology of public responses to climate policy.

This approach has several benefits. First, public responses can vary beyond binaries of acceptance/non-acceptance, or support/opposition (Dermont et al., 2017; Batel et al., 2013; Batel, 2018; Wolsink, 2018; Sælen & Aasen, 2023; Scherhaufer et al., 2017). Considering the role of mobilization along with disapproval helps to combine insights from literature on policy acceptance and contentious action, providing a structure to organize different public responses. For contentious (negative) responses, distinguishing between non-acceptance and backlash helps to avoid labelling all negative public responses the same (e.g., counter to the apparent growing tendency in climate policy debates to readily label criticism as backlash, which arguably should be assessed more specifically). For positive responses, it helps to distinguish between acceptance and support, following calls to do so (Dermont et al., 2017; Batel et al., 2013; Dreyer & Walker, 2013). Furthermore, while the approach anchors on disapproval (in line with our research question), giving less explicit attention to positive responses, doing so allows for the possibility of asymmetric explanations for different public responses. In other words, the factors or conditions explaining a category on one end of an analytical spectrum might not be the inverse of the factors explaining the opposite category. Therefore, while there is no intention to explain the observed public responses in detail, the approach provides a basis for explanatory analysis of contentious public responses as a future step.

3.3 METHOD

Using the typology in Section 3.2, post-adoption public responses to hard climate policy are systematically analyzed in a sample of 50 policy packages across 21 OECD member countries between 2009-2022. These are democratic, advanced industrial economies which arguably have a global responsibility and resources to advance ambitious climate mitigation policy, and can therefore be expected to have taken steps in this direction over the last decade or so. As democracies there is an expectation that these countries afford opportunity (albeit potentially varied) for public criticism, and that contention would therefore be both possible and detectable. The start date is the year of the Copenhagen Climate Summit (COP15) when it could be expected that national climate policy was gaining increasing attention and activity (even in the run-up to COP15) and the end date is the end of the calendar year prior to analysis. This approach helps to advance cross-country comparative analysis of public responses complementary to small-N analysis (e.g., single or a few cases) which is more common (Dreyer & Walker, 2013; Fairbrother, 2022, p.2; Ziegler, 2017), and thereby also helps to provide a balanced view since some countries are highly studied (e.g., United States, Australia) which risks skewing empirical debates.

3.3.1 Case Sampling

Hard climate policies from a defined population are systematically sampled drawing on the Climate Policy Database (CPD) (CPD, 2023), a global open access repository of climate policies (D'Orazio, 2022; Iacobuţă et al., 2021; Nascimento et al., 2022; Roelfsema et al., 2020). This database tracks national climate policies in 42 countries and the European Union most closely but also in many other countries and draws on other prominent datasets and reports (Appendix 3.1). This makes it well suited to systematic analysis of national climate policies in our study. The analysis used the latest complete version of the CPD at the time of analysis (February 2022), and manually added policies from the rest of the 2022 year (Figure 3.2). This sample frame allows us to avoid sampling on the dependent variable (i.e., to avoid selecting cases based on the outcome – the presence/absence of contention) (following McAdam & Boudet, 2012) enabling assessment of the prevalence of different types of public responses, especially contention. Public responses are treated empirically in reference to a policy itself, not whether the response reflects preferences for or against climate change mitigation per se, to avoid making assumptions about policy appropriateness3.

[3] For example, backlash could occur due to policy perceived as too strong or too weak, an issue we may see grow in coming years.

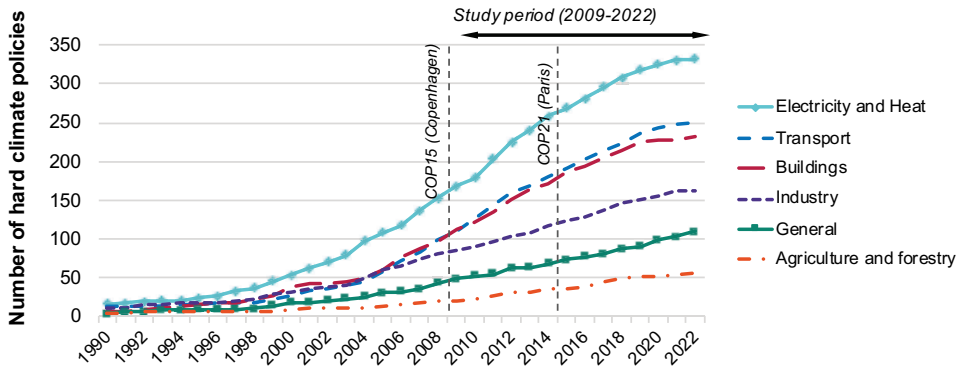


Figure 3.2: Cumulative adoption of hard climate policies across sectors in OECD member countries over time (accounting for policies ended or superseded).

Given the focus on hard climate policy, first hard policy instrument types are identified within the CPD by screening and re-categorizing instrument identifiers used in the database (Appendix 3.1) to align with our definition of hard policy (Section 3.1). This includes policies that regulate or limit certain activities, impose taxes or charges, or phase-out certain activities. This is important because policy instruments are often examined individually and with different levels of attention, and some instruments such as carbon taxation/pricing receive more attention than others (Fairbrother, 2022; Maestre-Andrés et al., 2019; Umit & Schaffer, 2020). Hence, the approach contributes to examining comparative patterns across different instruments within a certain policy type (i.e., hard policy) (Bergquist et al., 2022; Schulze 2021).

Then a sequential case selection process is applied (Appendix 3.2). First, two sectors are selected (as per CPD terminology): i) general frameworks (policies that apply across sectors and/or frame or underpin sectoral policies), and ii) energy and heat (policies related to energy supply and infrastructure) (Figure 3.2). General frameworks are selected due to its broad coverage, and energy and heat as the largest domain of activity, thus both are highly relevant to emissions reduction and decarbonization (Ge et al., 2020; Lamb et al., 2021; OECD, 2022b). Then the selected policies are screened to check that hard instrument types are central (rather than peripheral) elements4.

Then it is considered whether the policies impose costs on mass publics. Although the focus is on mass publics, interest groups can impact debates in the public sphere, and thus public responses to policy. Hence, the selection considers policies with target audiences that are either mass publics, or industries if a policy could readily lead to companies transferring costs

[4] This is especially important for general frameworks which might contain multiple instrument types. Therefore, in data collection and analysis, we screened newspaper articles for public responses specifically linked to hard climate policy elements.

to customers (e.g., energy supply) leading to contention in the public sphere. This approach echoes Soule and Earl (2005) who consider private organizations fostering public contention. Then individual policies are consolidated into policy packages where relevant when there are several closely interrelated policies with common goals that may not be readily distinguished by mass publics (e.g., Australia's Clean Energy Act (2011) and its spin-off policies: Carbon Pricing Mechanism (2012), Clean Energy Future Plan (2012), Carbon Pollution Reduction Scheme (CPRS) – ETS (2012)), to be empirically meaningful when studying public responses. This leads to the final sample of 50 cases across 21 countries (Appendix 3.3).

3.3.2 Data Collection

The object of analysis within the cases is public responses to adopted hard domestic climate policies. The chapter considers public responses with resonance at the national level. It is assumed that valid evidence of public responses, especially contention, will be detectable in newspapers of quality5 because contention is likely to readily attract coverage (Robertson et al., 2023; Vliegenthart et al., 2011). Public responses are also scrutinized to detect for relevance to national political debates over the climate policy in question. This approach is chosen for several reasons: first, general audience mass media such as newspapers provides a "master arena" for capturing public discourse (Gamson, 2004, p.243); second, this approach supports accuracy by drawing on trustworthy newspapers of quality; third, it supports comparability across cases through using a broadly comparable data type.

Newspaper sources are identified on a country-by-country basis to select quality newspapers with national scope (Appendix 3.4). First, a list of four newspapers per country is derived drawing on the compilation of the European Social Survey supplemented by own analysis of a country's newspaper landscape, previous studies using a similar approach (e.g., Peterson, 2021), and consultation with scholars knowledgeable about each country. Then a systematic search procedure is applied (Appendix 3.5). The procedure first iteratively derives a search string involving theoretical considerations (considering the operationalized typology), empirical considerations (e.g., plain-language terms, linguistic and contextual suitability), and application considerations (e.g., specificity and noise in search results) (Appendix 3.5), in accordance with typical procedures for systematic qualitative searches. The final search string is: ("Policy name" OR [colloquial variation of policy name]) AND (protest* OR demonstrat* OR mobili* OR contest*). intentionally The search string is intentionally kept focused on detecting general forms of mobilization to enable later distinction between mobilization against or for the policy.

We then conduct the search using the database NexisUni on a case-by-case basis (Appendix 3.5). We begin by using two newspapers per country, and then extend this to four if suf-

[5] By "newspaper of quality" (also referred in the literature as "newspaper of record"), the chapter refers to a newspaper with "a certain reputation for consistent attention to accuracy and depth in reporting news" (Martin and Hansen, 1996, p. 591).

ficient data is not identified in the first round. The timeframe for each search is anchored by the date of policy decision (as recorded in the CPD), with the search period defined as one year prior to the policy decision and three years afterwards. In case of a time lag between the policy decision and the date of implementation, and/or gradual implementation, the search period is extended by three years (i.e., up to six years in total from the policy decision). This is a relatively generous approach to ensure that we do not miss relevant public responses arising later in time, such as where is policy is challenged in a subsequent election.

The number of newspaper articles collected is highly variable across the cases. For nearly half of policy cases, the number of articles ranges between one and 20, while for 15 policies there is no data found in the NexisUni database. To further scrutinize these apparent gaps, and since there is unequal coverage of newspapers across different languages in the database, we also conducted an additional Google search using the same keywords and date range (yet open-ended concerning sources; scanning the first 3-4 pages) to try to detect any further evidence of contention not detected in NexisUni. This did not reveal additional evidence of contention. As a further check, we applied the same search using the Factiva database (Blatchford, 2020; Buntain et al., 2023), which confirmed our original search results (Appendix 3.6).

3.3.3 Operationalization and Analysis

We operationalize the typology in Figure 3.1 using measures to assess the presence/absence of each variable (i.e., disapproval, mobilization). We derive this approach by considering how these variables could be empirically detectable in the context of climate policy, also drawing inspiration from social movement literature concerning ways of measuring public contention (e.g., level of abstraction, use of composite measures, scoring approach) (e.g., McAdam & Boudet, 2012) and use of newspaper data to do so[6] (Earl et al., 2004; Soule & Earl, 2005). We use an ordinal scale for each measure (0-3) and combine the measures by taking the average of their scores to assess intensity of disapproval and mobilization, respectively. We then apply a (conservative) threshold to identify the presence (i.e., ≥2) or absence (<2) of disapproval and mobilization, respectively (Appendix 3.7). We do this because even if disapproval and/or mobilization is present to a low extent in a certain case, our focus is on detecting contention, in which we want to have confidence.

To detect the presence of disapproval, we use two measures: i) policy dis-favorability (i.e., dis-favorability of the specific policy, where: 0=no evidence of disapproval, 1=limited and/or sporadic dis-favorability, 2=notable dis-favorability which might vary over time, 3=widespread and sustained dis-favorability), and ii) government dissatisfaction (i.e., general dissatisfaction with incumbent government beyond the specific policy, where: 0=no evidence

[6] For example, well known databases as Mass Mobilization Database, Global Protest Tracker, Nonviolent and Violent Campaigns and Outcomes, and ACLED (Armed Conflict Location & Event Data) use newspaper data as sole or key sources.

of dissatisfaction, 1=limited and/or sporadic dissatisfaction, 2=notable dissatisfaction which might vary over time, 3=widespread and sustained dissatisfaction). To detect the presence of mobilization, we use three measures: i) number of participants (i.e., multiple participants involved in mobilization activities [Earl et al. 2004; Soule & Earl 2005], where: 0=absent, 1=100-999 participants, 2=1,000-9,999 participants, 3=10,000+ participants), ii) directed action (i.e., salient forms of targeted mobilization for political attention), which is a compound measure involving: a) frequency (i.e., sustained mobilization activities over time, where: 0=absent, 1=one activity, 2=two consecutive activities, 3=three or more consecutive activities), b) variety (i.e., different types of mobilization activity such as protest, demonstration, or petition, among others, where: 0=absent, 1=one type, 2=two types, 3=three or more types), and c) attention (i.e., whether mobilization receives attention among policymakers, where: 0=no apparent policymaker attention, 1=some policymaker attention, 2=moderate policymaker attention, 3=high policymaker attention), and iii) goal specificity (i.e., relevance of the claim towards the specific policy, where: 0=non-relevant claim, 1=general claim about climate change, 2=general claim about climate policy, 3=claim specifically about the policy). Appendix 3.7 provides further information on the scoring and coding procedure and two illustrative examples of how this was conducted.

We interpretively code the collected newspaper data by applying the measures using Nvivo (qualitative data analysis software). We first screen the newspaper articles for relevance to retain only those actually pertaining to the case (summarized in Appendix 3.8). For cases with fewer than 100 newspaper articles, we code all of them (excluding those that are irrelevant after individual screening). For cases with 100+ newspaper articles, we individually screen the articles (based on title and preview) selecting up to 150 most relevant ones. Coding was performed by one coder over a relatively short period of time (12 weeks) following data collection. A pilot coding phase comprising approximately 10% of the data gathered was performed to deliberate on the coding strategy among both authors and make necessary adjustments. The full coding was then performed by the same single coder (first author) in consultation with the second author. Coding involved applying the measures as qualitative codes (labels) to identify relevant data components (e.g., sentences, reported data such as polls and events, statements concerning public responses) to build up a base of evidence to score each measure. Furthermore, if a certain case also showed public responses in two directions (i.e., for and against a policy) which occurred in a small number of cases, then we also coded and scored both responses for a fuller interpretive picture, although this does not detract from the assessment of the case because our focus is on positively detecting the presence of contention. Throughout the coding process, there was a constant reflection back to the previously coded cases to ensure consistency. This follows a typical deductive qualitative coding approach. Finally, we compile the scores for the presence/absence of disapproval and mobilization in each case (rounded to the nearest whole number), and thereby categorize each cases against the typology of public responses (Appendix 3.8).

An important limitation is that contention might not always be reported equally in newspapers. We sought to mitigate this issue in several ways including searching in native languages using linguistically and contextually appropriate search terms as far as we could ascertain, focusing on a relatively politically diverse pool of newspapers of quality, and for cases with few results expanding the number of newspapers and conducting additional open Google searches to try to detect any missed contention. Nonetheless it is possible that we still missed some important instances of contention in the cases studied especially due to newspaper nonreporting or due to contention at other levels (e.g., subnational, local). Another limitation is that due to our focus on positively detecting contention, we assume that cases lacking evidence of disapproval are categorized as Acceptance even if passive. However, some instances of non-contention might involve policy indifference/unawareness with latent potential for contention.

3.4 RESULTS

Results reveal a relatively low prevalence of contentious public responses to adopted hard climate policies (12%) while most policies were accepted by mass publics (78%) and occasionally (actively) supported (6%) (Figure 3.3). Clear patterns between the type of public response and policy instrument type are somewhat difficult to identify. Although, it is noteworthy that a substantial proportion of all three hard policy types locate under acceptance. This is perhaps counterintuitive especially for pricing/taxation policies which are often seen as unpopular and thus with ongoing risk of contention. Yet, on the other hand, there were no pricing/taxation policies actively supported by mass publics while this instrument was prominent among backlash cases.

Policy instruments related to carbon taxation/pricing are the most widely used (56%), followed by regulation (34%), while phase-outs represent only 10%. This distribution suggests that financial and regulatory intervention have been the focus of hard policies to date. Phase-out policies, understood as policy interventions "that deliberately seek to terminate one or several socio-technical elements in a gradual or stepwise process" (Rinscheid et al., 2022, p.225) are used more rarely, but might increase in coming years.

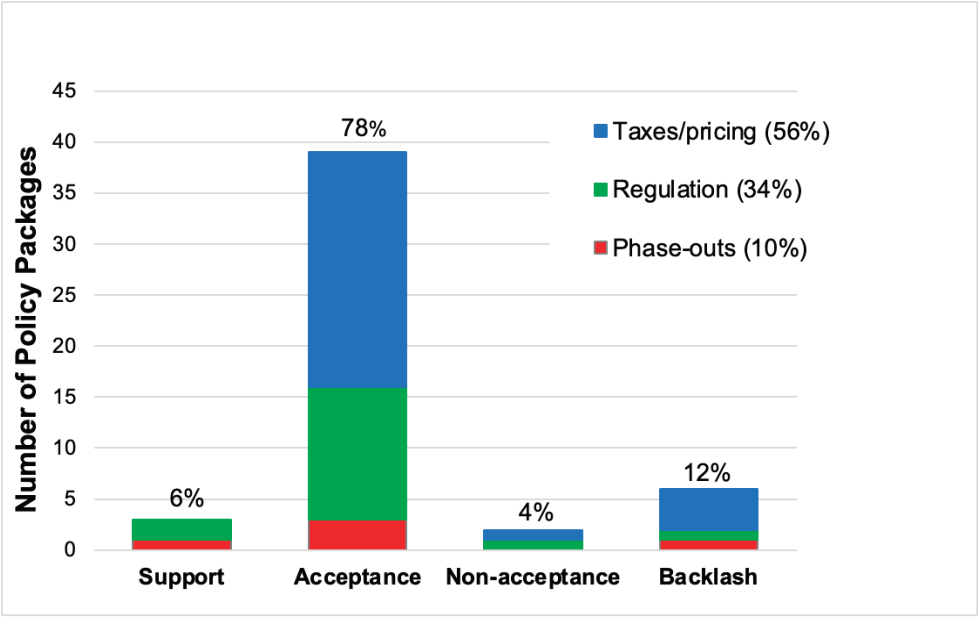
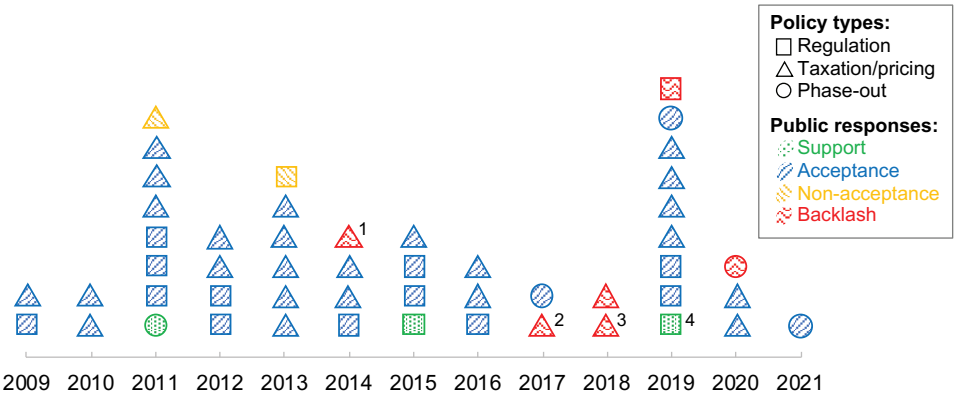


Figure 3.3: Public responses for different policy instrument types in the sample.

Temporal patterns of public responses to hard climate policies are somewhat ambiguous (Figure 3.4). A possible pattern is the clustering of backlash mostly in the latter half of the period studied (i.e., one case pre-2015; five cases post-2015). This might suggest that contentious public responses have increased in the aftermath of Paris Agreement due to anticipated increases in climate policy ambition (Raiser et al., 2020). But the apparent uptick in contention could also be linked to a wider atmosphere of growing populism and/or concerns about economic inequality in various countries within which climate policy becomes swept up (Lockwood 2018). In most cases, public responses coincide with the time of policy adoption. However, some cases experienced mobilization up to six years after the policy was introduced (i.e., three cases of backlash; one case of support). This could be due to gradually increasing costs that trigger response at a certain moment (backlash) or eroding policy stability that triggers proactive policy support (Pahle et al., 2017).



Notes:
1. The carbon pricing policy package in Australia (adopted 2011-2012) was largely repealed in 2014.
2. The Carbon Tax policy package in Mexico (adopted 2014) faced protests in 2017.
3. The Carbon Charge Component policy in France (adopted 2014) faced major protests in 2018-19.
4. The Clean Power Plan in the United States (adopted 2014) was actively supported in 2019 in the face of rollback by a new administration.

Figure 3.4: Temporal distribution of public responses to hard climate policies.

3.4.1 Support

Three policies encountered public support: the Energy Transition Law (2015) in Mexico, the Clean Power Plan (2014) in the United States, and the prolongation of prohibition of nuclear energy production (2011) in Italy7. These cases involve support in varying situations. Mexico's Energy Transition Law (2015), a regulatory policy, had been endorsed in 2014 by the Chamber of Deputies. But when its passage began to appear stalled, nationwide protests arose to affirm support for energy transition involving multiple environment, development, and indigenous organizations, demonstrating a linking of concerns over climate policy and socioeconomic development/ livelihoods. The US Clean Power Plan (2014), a regulatory policy, was targeted for repeal by the Trump administration in 2017 (accomplished in 2019) to be replaced by the Affordable Clean Energy (ACE) Rule which would relax environment protection standards and allowing states more leniency on emission reduction targets. Public support arose to try to defend the Clean Power Plan through legal challenges and political party positions. The prolongation of prohibition of nuclear energy production (2011) in Italy, an affirmation of an existing phase-out decision, was questioned when the government proposed to increase the use of nuclear power for electricity to mitigate increasing energy costs (Bersano et al., 2020; Esposto, 2008). However, this proposal was strongly rejected by voters in a referendum in June 2011, affirming support for the previous phase-out decision.

These cases show different reasons for mass public support for climate policy. For Mexico's Energy Transition Law (2015), support arose when the policy process stalled reflecting a response to concerns about delays and obstruction. For the US Clean Power Plan (2014),

7 Formally referred to as "Abrogation of the legal regime applying to nuclear energy production" (2011).

support arose when a new government acted to repeal the policy, representing an affirmative response to protect a prior policy win. For the nuclear energy phase-out in Italy (2011), support for a continued prohibition of nuclear energy production was motivated by fear of future disasters suggesting mobilization against perceived risk.

3.4.2 Acceptance

Most policies in the sample (78%) were seemingly accepted by mass publics. Importantly, the category of acceptance includes cases without substantial disapproval and without noticeable mobilization (Figure 3.1) and therefore acceptance could be active or passive (Section 3.2.2). Nonetheless, the overall pattern suggests that hard policies might often be adopted without either major support or contention among mass publics. Interestingly, the type of policy instrument does not seem to delimit acceptance because a substantial number of both regulatory and pricing/taxation policies are reflected. This is perhaps surprising given that hard policies are often thought to be contentious, especially those involving pricing/taxation. But it also raises questions about whether these policies are specifically viewed as favorable, people are not aware of the policy being introduced, or because ambition is too low to generate attention.

15 cases were positively categorized as acceptance based on available newspaper data. This included five regulatory policies (Australia, Canada, Colombia, Germany, Mexico), nine pricing/taxation policies (Switzerland, Colombia, Germany, Denmark, France, UK, Mexico), and one policy regarding coal phase-out in Chile. In turn, 24 cases were categorized as acceptance by default due to an absence of evidence of contention in the data. This included eight regulatory policies (Austria, Canada, Japan, Poland, Sweden, US), 14 pricing/taxation policies (Chile, Spain, France, UK, Ireland, Japan, South Korea, Turkey), and two phase-out policies related to exploration and exploitation of fossil fuels in Costa Rica and France.

Some policies categorized as accepted are framework policies. For example, the UK Finance Act 2011 contains over 200 provisions and grants "certain duties, alters other duties, and to amend the law relating to the National Debt and the Public Revenue, and to make further provision in connection with finance" (Chapter 11, UK Finance Act 2011). Yet, their broad scope might cover up more specific policy measures that are potentially contentious. For example, one of the provisions in this Act was an increase in climate change levy (§23, Part 1) that largely went unnoticed in Part 6 "Other taxes". Hence, such policies might impact public responses regarding other more specific policies.

Sometimes contention occurred within a specific industry sector or decision arena (e.g., ministry, sub-national government). However, if no mass public response followed, we treated these as acceptance (i.e., ordinary disagreement eventually resulting in broad public acceptance). For example, in the case of Chile's Carbon Tax policy (2014) protests arose from a particular agricultural sector which led to a series of governmental negotiations with

industry. These measures as well as the refined policy structure helped avoid the spillover of contention into the wider public domain (Musquiz, 2018). In the case of France's Excise Tax on Energy Products (2011) contention arose among different levels of authority (i.e., municipal, departmental, national) regarding the beneficiaries of excise revenue but this did not evolve into wider public discontent.

The absence of mobilization concerning policies could be due to an expectation among mass publics that policy adoption has been successfully won. For example, Germany's Fuel Emissions Trading Act (2019) experienced a high degree of consensus and therefore was not an enduring object of contention. On the other hand, Mexico's Emissions Trading Scheme Pilot Project (2020) was deliberately positioned as a pilot to reduce the risk of contention. And in the UK, the public largely remained indifferent to the Finance Act (2011) containing climate policy provisions due to the broad nature of this policy. Hence, acceptance may arise actively or passively.

3.4.3 Non-Acceptance

Two policies were categorized as non-acceptance: the UK Energy Acts of 2011 and 2013. Both cases involved negative public responses due to unambitious climate policy. The Energy Act 2011 established a poorly enforced obligation on energy companies to help certain groups of consumers to save energy. However, dissatisfaction arose when payments to households for energy efficiency improvements were insufficient due to purportedly high costs, which resulted in additional costs to households and growing concerns about energy poverty. The Energy Act 2013 introduced an emissions performance standard for new power plants, but this was much lower than understood to be needed to meet climate targets and allowed new gas plants to lock in high levels of emissions into the future. This was criticized by environmentalists and provoked heated parliamentary debate and public frustration. Nonetheless, in both cases specific mobilization against the policies appeared to be missing. Disapproval mostly took form of negative sentiment about climate and energy policy (James, 2023).

3.4.4 Backlash

Six policies encountered backlash from mass publics, including all three types of policy instruments. Yet, four cases involved carbon pricing/taxation (i.e., Australia, Canada, France, and Mexico). France's Carbon Charge Component was gradually increasing since 2014, yet major public discontent erupted in 2018-19 in the form of the Yellow Vests Movement when policy-associated costs became perceived by many as excessive and unfair for those already experiencing economic anxiety particularly in non-urban areas. Mexico's Carbon Tax introduced in 2014 led to heated protests later in 2017 when rising fuel prices contributed to energy poverty among nearly 37% of households (Gutiérrez, 2017). In contrast, Australia's Carbon Pricing Mechanism (2011-2012) and Canada's Fuel Charge and Pollution Pricing

Act (2017-2019) both faced immediate contention and were exploited by political opposition as a divisive issue despite rebates and compensation mechanisms for low-income households.

The only regulatory policy case of backlash was the US Affordable Clean Energy Rule (2019) which encountered a high level of contention because it lowered environment protection standards from the prior Obama-era Clean Power Plan. Political partisanship played a crucial role in stirring public debate and mobilizing opposition to the rule which led to a series of nationwide protests and helped to put this regulation on hold. The only phase-out policy case of backlash was Germany's Coal Exit Law (2020) which also faced public discontent, but this was due to a perceived insufficiently low level of climate ambition which led to nationwide protests in support of more ambitious climate policy (Haas et al., 2022).

These cases show different reasons for backlash against climate policy. In France and Mexico, costs imposed on people unable to shoulder them provoked intense contention. However, in Australia and Canada, the drivers of backlash appear to be more centrally related to significant societal polarization and divisive populism opposing climate policy. Differently again, backlash arose in Germany in response to policies perceived as too weak rather than too costly. This shows that backlash is not exclusively a reaction against any climate policy but might arise because of a perception of too much or too little ambition.

3.5 DISCUSSION

To examine the observed patterns of public responses, we consider potential links between public responses and four policy attributes: instrument type, gradual policy introduction, country, and timing. First, instrument type does not seem to produce consistent public responses. For instance, carbon pricing policies, which are often considered to be unpopular among mass publics (Hammerle et al., 2021; Klenert et al., 2018; Skovgaard & Ferrari, 2023), were not exclusively contested and were often even accepted. This instrument type encountered strong immediate opposition in Canada and Australia, delayed opposition in France, and was accepted in Switzerland[8], Chile, Colombia (where further tax increase was not applied). However, there were no cases of support for carbon pricing. Regulation was the only policy instrument type that encountered all four public responses. Although, this may simply reflect variation in regulatory policies themselves (Hughes & Urpelainen, 2015; OECD, 2022a; Pacheco-Vega, 2020). Despite being the least represented policy instrument, phase-out policies cover diverse issue-areas (from nuclear to coal) with mixed results, which

[8] This refers to the so-called "second CO_2 Tax" (2013) which included carbon trading mechanisms. This policy was accepted by the population (or at least, no evidence of contention was detected as per the coding procedure). Later unsuccessful attempts to revise the law (e.g., 2021 referendum) are not part of the sample due to our focus on adopted policies. Yet, it is important to state that a carbon tax remains contested in the Swiss context.

could be because public responses are highly context dependent (Egli et al., 2022; Rinscheid et al., 2022).

Second, policies with a gradual introduction (ramping up or tightening over time) had varying public responses. In some instances (e.g., Swiss CO2 Compensation Duty (2014)), policy recipients grew accustomed to the regulation and largely accepted progressive increases (Levin et al., 2012; Thalmann & Baranzini, 2006). Yet, in the case of Carbon Charge Component in France (2014), a progressively increasing policy burden, linked to wider concerns and grievances, resulted in major backlash in 2018 (Driscoll, 2023). This cautions against seeing incremental ramping-up of policy as a solution to prevent contention. Policies with redistribution also had varying public responses. In the case of Canada's carbon pricing policy package, a rebate scheme announced in 2018 seemed to reduce disapproval (Toronto Star, 2019) at least in the short-term, although its longer-term effects remain unclear and possibly more shaky (Mildenberger et al., 2022). In the case of Australia's Carbon Pricing Mechanism, redistribution through tax cuts for low-income households and direct payments to low- and middle-income households did not outweigh perceptions of a cost burden, and thus did not allay contention. This suggests that redistribution even if progressive and/or premised on fairness (Carattini et al. 2018; Maestre-Andrés et al., 2021) may not always mitigate contention.

Third, there does not seem to be clear geographical patterns in mass public responses. Although, in some countries, diverging public responses such as backlash and support (e.g., Mexico, United States) or acceptance and non-acceptance (e.g., United Kingdom) were present across different policies. This might suggest a role for political system type in influencing public responses as discussed in the literature. For example, scholars have argued that majoritarian systems can foster division between political parties and publics over climate policy due to incentives for political opportunity (Andersen, 2019; Lipscy, 2018; Mildenberger, 2020).

Fourth, temporally, there appears to be an increase in contention in the post-2015 period. This might be simply due to an increase in the number of adopted policies, or perhaps an increase in stringency of proposed climate policies leading to increased public contention (Botta & Koźluk, 2014; Glaus, 2021; Nachtigall et al., 2022). However, to assess this, in-depth analysis of stringency would be needed (e.g., Schaffrin et al., 2015). It is also important to examine the pre-adoption stage of policy which is likely to reveal substantially more contention over policy formulation and adoption. Furthermore, timing might play a role in individual policy cases. For instance, timing of policy adoption vis-à-vis electoral cycles or broader socio-economic developments (e.g., economic crises, societal polarization) could matter (Brown & Sovacool, 2017; Farstad et al., 2018; Hutter & Weisskircher, 2023).

Overall, the finding of a relatively low prevalence of contentious public responses in the sample (total of 16%, comprising 12% backlash and 4% non-acceptance) is noteworthy given the general expectation among scholars and policymakers that hard policies are prone to contention and backlash. One explanation for the seemingly low prevalence of contentious public responses could be a relatively low level of ambition within the sampled policies. In other words, policy recipients are not excessively burdened by such policies. Another explanation could be unawareness by mass publics about the policies. This could be intentional by policymakers (e.g., policy discussion is minimized or introduced at times where other issues are more salient), structural (e.g., policy is created through inter-party negotiation in ways that make attribution of responsibility unclear), or incidental (e.g., due to genuinely low level of climate-related concerns). On the other hand, a more positive interpretation could be that latent public desire for climate policy is higher than typically thought which moderates contentious public responses. But this is less likely since we would then also expect to see greater contention over lack of ambition, because our approach focuses on detecting contention regardless of direction (i.e., too high or too low ambition). Reasons for the occurrence of contentious public responses may also vary across different cases due to the embeddedness of specific policies within complex socio-political contexts where they become objects of attention, including in relation to other issues and debates (e.g., sensitivity to costs, conservative or progressive shifts in public mood). This would suggest that a key issue is how climate policy calibrates to specific socio-political contexts and moments in time.

3.6 CONCLUSIONS

We contribute to work on ex-post analysis of public responses, complementary to ex-ante studies of public support, both of which are important given the challenges of advancing ambitious and durable climate policy and the potential causal complexity of public responses. Policy struggles do not end with policy adoption, and our study suggests that policymakers must remain attentive to post-adoption contention and the role of mass publics at this stage. Although our findings reveal a relatively low prevalence of contention at the post-adoption policy stage, the chances of such contention may grow in the future both as climate policy becomes more demanding and due to wider fractious contemporary politics. Nonetheless, politicians and policymakers should not be axiomatically fearful about the lack of public acceptance of hard climate policies. There may be more latitude than commonly thought to advance hard climate policies, especially as climate policy debates keep rapidly evolving and the realities of unfolding energy transitions become increasingly apparent within society and politics.

Several policy implications can be drawn. Firstly, policy makers should consider stringency not only as a matter of policy design (de jure) but also as it manifests contextually (de facto). For example, the incremental increase of France's carbon charge component (initially set

out in 2014 but triggering a contentious public response several years later) coincided with growing economic insecurity for many people, meaning that policy stringency was perceived differently in peoples' lives than it may have seemed in design alone. Relatedly, hard climate policy could include flexibility to moderate policy stringency in changing contexts and to soften requirements when unexpected pressures arise. Policy moderation is already sometimes done in ad hoc ways (such as when politicians suspend charges or obligations in the face of criticism), but this could be structurally designed-in to enable credible proactive responses following pre-specified rules. It could also include the opportunity to increase policy stringency when circumstances allow, such as when renewable energy targets are met sooner than anticipated, when a boost is needed to achieve pre-defined targets, or when economic or social circumstances allow the possibility to ramp up ambition. This resonates with broader calls by some policy scholars for attention to ways of 'moderating the policy thermostat' (Rosenbloom et al., 2019; Cashore and Howlett 2007). However, such an approach could also risk tampering by politicians wishing to hold back climate policy, emphasising the need for credible moderation procedures. Lastly, policy makers might consider trying to keep policy salience low. However, the efficacy of such an approach is not clear since policy developments are likely to become apparent anyway risking greater criticism, and ethical questions also arise over transparency. Thus, addressing public concerns thoroughly within policy design is likely to be a more robust approach.

Crucially, our study does not cover cases of policy proposals which experience contention (and might be rejected) prior to adoption. This is because our focus was on the post-adoption stage as a first step that can be expanded in future work. Our goal was to assess prevalence using an objective sample frame to avoid sampling on the dependent variable. As such, the analysis provides a baseline assessment for the post-adoption phase only. We also did not study sub-national levels of climate policy, yet this would be interesting and important to examine and bring alongside national level analysis especially because it is often thought that states/ provinces/ regions can exert counter-veiling policy directionality compared to the national level.

An important next step for future research is to analyze the drivers of contentious public responses to hard climate policies. This could include factors relating to policy characteristics but also institutional and societal context. For example, design features such as redistribution and progressive phase-in seem to have mixed results concerning public responses, and other design factors (e.g., timing, sequencing) need further work and possibly also larger samples to scrutinize. Yet, Mildenberger et al., (2022) finds that people may respond in non-rational ways (i.e., unaligned with actual policy design) due to partisan cues that can bias peoples' responses to policy. Others point to the political contexts under which policy is adopted (e.g., interest intermediation, electoral blame shielding) as important in understanding contention (Finnegan, 2022, Andersen, 2019). Further institutional factors (e.g., election proximity) and non-institutional factors (e.g., prior mobilization, economic crisis, cultural grievance) might

also influence public responses. This points to a complex task to explain public responses, which could arise through different causal mechanisms. Our study provides a first step towards such work by identifying and reflecting on patterns of public responses to inform future analysis of factors and mechanisms causing them.



Chapter IV

Unraveling the conditions for post-adoption contestation over hard climate policy in OECD countries[9]

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ABSTRACT

Understanding drivers of public contestation over hard climate policies is crucial for advancing climate action. While existing literature provides insights into conditions for policy support and adoption, conditions for policy contestation at the post-adoption stage remain opaque. We investigate conditions for policy contestation at the post-adoption stage in a sample of 27 national climate policies in OECD countries (2009–2022). We employ fuzzy-set Qualitative Comparative Analysis drawing on primary (62 structured expert interviews) and secondary (media, datasets, academic and grey literature, policy documents) data. Findings reveal that policy contestation arises from a combination of conditions, especially when policy is perceived as demanding and unfair, sometimes also combined with socio-political polarization, lack of climate change concern, and lack of information provision. This supports ex-ante work on expected conditions of contestation but also suggests a need for attention to conjunctural causation, complex socio-political constructs, and analyzing policy content and policy context jointly.

4.1 INTRODUCTION

'Hard' climate policies are needed to advance ambitious climate action but can be heavily contested both before and after they are adopted. Such policies impose costs or constraints on policy recipients (Schulze, 2021, p. 3) with a threat of sanction or force (Salamon, 2001). They can include regulation, pricing/taxation, and phase-outs of specific technologies. While often objects of political struggle during policy formulation, hard policies may also be heavily contested at the post-adoption stage, such as when costs (both material and symbolic) become apparent to target groups. For example, Krosnick and MacInnis (2013) argue that climate policy can face a "principle-implementation gap" where mass publics support a policy outcome in principle but oppose a specific policy aimed at delivering the result. Furthermore, scholars have observed a discrepancy between ex-ante and ex-post public opinion on climate policy (Dechezleprêtre et al., 2022; Schuitema et al., 2010) and a difference between willingness to support and willingness to pay (Bakaki & Bernauer, 2017). However, despite increasing documentation of post-adoption contestation over hard climate policy (Jordan & Matt, 2014; Patterson, 2023), there remains little comparative understanding of the conditions under which contestation over adopted hard climate policy arises. Whether or not a policy is contested at the post-adoption stage is not necessarily straightforward because contestation may depend not only on the magnitude of costs but also, for example, perceptions and meanings of a climate policy, and the wider socio-political context which could shape responses to a specific policy (e.g., socio-political polarization).

We can draw insights on post-adoption contestation over climate policy from literature on public responses to climate policy and the politics of climate policymaking. First, work on public responses to climate policy approaches contestation as a possible type of public response within a wider spectrum ranging from support to opposition. The focus is typically on understanding acceptance and/or support for climate policy, motivated by a concern for making policy politically viable (Kyselá et al., 2019; Sælen & Aasen, 2023, p. 2). For example, many studies analyze the factors facilitating support and/or acceptance of climate policy, which range from individual characteristics (e.g., age, education, political orientation) to policy design features (e.g., effectiveness, fairness, magnitude of costs), to contextual factors (e.g., political trust) (Bergquist et al., 2022; Dechezleprêtre et al., 2022; Drews & Bergh, 2015; Ejelöv & Nilsson, 2020). This has led to rich insights about factors influencing public support/acceptance and their importance for climate policy design. However, the common reliance on ex-ante surveys and experiments risks creating "artificial environments with low external validity" (Heyen & Wicki, 2024, p. 787) and measures factors independently at the level of individual respondents rather than at the socio-political level where public contestation is generated through social interaction.

Second, work on the politics of climate policymaking approaches contestation from a variety of angles. For example, it highlights struggles over the distributional politics of climate

change (Aklin & Mildenberger, 2020; Mildenberger, 2020) as well as processes of policy design and feedback(Jordan & Matt, 2014; Sewerin et al., 2023) and legitimation (Patterson, 2023). It also considers the role of different actors (e.g., mass publics, politicians, interest groups) in policy formation and adoption (Hutter & Weisskircher, 2023; Mildenberger, 2020; Schulze, 2021; Stokes, 2016, 2020), and how institutions (Finnegan, 2022; Lachapelle & Paterson, 2013; Lockwood, 2013) and policymaking styles (Andersen, 2019) shape policy decisions. However, this literature tends to focus on understanding the conditions for policy adoption, rather than the conditions for contestation specifically. It is also somewhat fragmented, through taking different analytical angles and highlighting different explanatory factors, leaving the implications for explaining post-adoption policy contestation unclear.

A key gap, therefore, is a lack of specific focus on explaining contestation itself as a dependent variable, which requires bridging policy content and policy context. On the one hand, work on public responses to climate policy recognizes contestation as a possible response, but usually focuses on explaining public support and/or acceptance (Kyselá et al., 2019; Sælen & Aasen, 2023, p. 2). On the other hand, work on the politics of climate policymaking approaches contestation as inherent to processes of climate policymaking but tends to focus on the formal institutions and elite politics of policy adoption rather than the conditions for post-adoption contestation specifically. Moreover, the conditions for post-adoption policy contestation might not be the direct inverse of the conditions for public support/acceptance. The post-adoption stage involves different dynamics to that of policy formation and adoption as costs and other impacts materialize. The wider policy environment might change over time, before and after a policy is adopted, changing the propensity for contestation. Perceptions and meanings of climate policy may also shift during ongoing political struggles (Stone, 2012), including through partisan messaging (Mildenberger et al., 2022) and elite cues (Hacker & Pierson, 2014; Smith et al., 2024). The conditions under which post-adoption policy contestation occurs therefore remain unclear.

This chapter asks the question: Under which conditions does public contestation over hard climate policies occur at the post-adoption stage? To do this, we analyze conditions of contestation over hard climate policy using fuzzy-set Qualitative Comparative Analysis (fsQCA) in a systematic sample of 27 national-level policy cases in OECD countries from 2009-2022. This method enables analyzing conditions in combination rather than individually which is increasingly called for (Ejelöv & Nilsson, 2020; Heyen & Wicki, 2024). It involves medium-N analysis, which helps to move beyond the common use of single/small-N cases, while still allowing for attention to the specifics of each case in data collection and analysis. By focusing on the post-adoption stage, by which we refer to the period following a policy entering into force (up to six years), we take an ex-post perspective, which complements the typical ex-ante focus of work on public responses, to scrutinize actual rather than expected conditions shaping contestation. This also complements work on the politics of policymaking by focusing directly on the question of 'what comes next' after a policy is adopted.

The chapter interpretively draws on a variety of in-depth data sources including structured interviews with 62 national policymakers and experts from the selected cases, as well as secondary quantitative data, policy documents, and media articles. The presence of possible explanatory conditions is assessed which could be associated with policy contestation derived from climate policy literature, spanning policy content and context. Empirically, the approach goes beyond the common focus on carbon pricing/taxation in climate policy analysis (Fairbrother, 2022; Maestre-Andrés et al., 2019) by also including other types of hard policies (e.g., regulation and phase-out). It also modestly contributes to addressing the over-representation of Global North cases in climate policy analysis (Heyen & Wicki, 2024; Valencia et al., 2024) as around 30% of our cases are in the Global South. The findings reveal several conditions (involving both policy content and context) are associated with climate policy contestation. In particular, the combination of demandingness and unfairness is likely to be central in explaining contestation over hard climate policy at the post-adoption stage, potentially also in combination with socio-political polarization, lack of climate change concern and lack of information provision. Policy contestation arises from the combination of these conditions, rather than their individual presence alone. The ex-post findings broadly align with ex-ante work but also highlights the need for greater interpretive attention to complex socio-political aspects when explaining policy contestation.

4.2 RESULTS

This section first analyzes the full sample of hard climate policies (i.e., pricing/taxation, regulation, and phase-outs) at the national level in OECD member countries between 2009-2022 (n=27) to identify conditions associated with policy contestation. Several possible configurations of conditions (i.e., 'solution pathways') are observed which together explain approximately two-thirds of the outcome. The section then disaggregates two subgroups based on instrument type: (i) pricing/taxation (n=15), and (ii) regulations and phase-outs (n=12). This interrogates solution pathways for the different hard policy instrument types in our sample, and whether overall patterns hold at the subgroup level. The section highlights several promising solution pathways for the first subgroup which overlap with those of the full sample, but non-informative results for the second subgroup.

4.2.1 Analysis of the full sample

The section begins with the analysis of necessary conditions for policy contestation. This analysis shows that none of the five conditions is individually necessary for the outcome, or for the non-outcome (i.e., policy non-contestation) (Supplementary note 1). Some combinations of conditions provide meaningful SUIN conditions with acceptable parameters of fit (i.e., inclN ≥ 0.9; RoN and CovN ≥ 0.6): socio-political polarization and demandingness; climate change concern and unfairness; and demandingness and unfairness. In other words, these combinations of conditions are necessary for the occurrence of policy contestation.

However, while a possible further step could be to combine these conjunctural conditions into higher-order conditions, we opt not to do so to retain conceptual clarity over the individual conditions.

The section then presents the analysis of sufficient conditions for policy contestation. The first step is to develop a truth table (Table 4.4) to organize each case according to the combination of conditions and outcome reflected, where rows reflect combinations of conditions and outcomes rather than individual cases. They specify "qualitatively different combination of conditions … a difference in kind rather than a difference in degree" (Schneider & Wagemann, 2012). The truth table converts fuzzy scores into binary-like values based on a specified threshold (i.e., the crossover point in fuzzy set values demarcating when a case crosses from in to out of a set; here a score of 0.5 reflects the crossover point, following a standard approach). The truth table contains the configurations of conditions with empirical observations in the sample, within a hypothetical full truth table containing all possible combinations of conditions (2k, k=5, i.e., 32 rows available).

Table 4.4. Truth table for the full sample.

Row	POLAR	CONCERN	DEMAND	UNFAIR	INFO	OUT	n	inclS	PRI	Cases
27	1	1	0	1	0	0	3	0.861	0.568	13, 16, 27[x]
7	0	0	1	1	0	1	2	0.948	0.835	23, 24
23	1	0	1	1	0	1	2	0.913	0.779	1, 18
3	0	0	0	1	0	0	2	0.847	0.246	14, 21
10	0	1	0	0	1	0	2	0.768	0.401	8, 11[x]
14	0	1	1	0	1	0	2	0.766	0.395	3, 22
22	1	0	1	0	1	0	2	0.663	0.198	20, 26
31	1	1	1	1	0	1	1	0.913	0.779	12
16	1	1	1	1	1	1	1	0.909	0.752	4
19	1	0	0	1	0	0	1	0.903	0.596	7
13	0	1	1	0	0	0	1	0.887	0.496	10
5	0	0	1	0	0	0	1	0.881	0.330	9
1	0	0	0	0	0	0	1	0.849	0.248	17
17	1	0	0	0	0	0	1	0.849	0.398	19
9	0	1	0	0	0	0	1	0.841	0.248	25
25	1	1	0	0	0	0	1	0.841	0.398	15
20	1	0	0	1	1	0	1	0.816	0.496	6
2	0	0	0	0	1	0	1	0.748	0.248	5
26	1	1	0	0	1	0	1	0.725	0.248	2

[x]Denotes contradictory rows where outcome does not match case, which is normal as empirical cases with the same combination of conditions might have different outcomes (Schneider & Wagemann, 2012, p. 95).

Considering parameters of fit (i.e., inclS, PRI), only some rows of Table 4.4 satisfy conventional thresholds for cases featuring the outcome (i.e., cases 1, 4, 12, 18, 23, 24). Following the operationalization (see Methods), these are cases with full or partial presence of the outcome (i.e., backlash or non-acceptance). These six cases (of eight in total within the sample) involve carbon taxes in Australia (2011), France (2014), Mexico (2017), and Canada (2018), and energy sector pricing-related policies in the UK (2011, 2013). The cases are not evenly distributed across all possible combinations of conditions leading to the outcome, indicating limited diversity. Therefore, while several possible types of solution can be considered (i.e., conservative, parsimonious, and intermediate solutions), the conservative solution is most appropriate in the first instance because it prioritizes reliability and consistency, seeking the most robust solution given available data.

The conservative solution (model M1) (Table 4.5) has good parameters of fit (consistency=0.929; PRI=0.859; sufficiency coverage 68.5%). This model is made of three solution pathways, suggesting that policy contestation arises from: (i) POLAR* DEMAND* UNFAIR* ~INFO (i.e., presence of socio-political polarization, demandingness, and unfairness, and absence of information provision), (ii) ~CONCERN* DEMAND* UNFAIR* ~INFO (i.e., presence of demandingness and unfairness, and absence of climate change concern and information provision), and (iii) ~POLAR*CONCERN* DEMAND* UNFAIR*INFO (i.e., absence of socio-political polarization, presence of climate change concern, demandingness, and unfairness, and information provision). All three components are combined in the model with 'or' operators. Yet, a common element present in two of three solution pathways covering most cases of policy contestation is DEMAND* UNFAIR* ~INFO, implying that policy which is seen as demanding and unfair coupled with lack of information seems to be prone to policy contestation. This occurs in combination with either socio-political polarization or absence of climate change concern.

Table 4.5. Conservative solution model for full sample with three solution pathways*.

M1: POLAR*DEMAND*UNFAIR*~INFO + ~CONCERN*DEMAND*UNFAIR*~INFO + ~POLAR*CONCERN*DEMAND*UNFAIR*~INFO => OUTCOME					
	inclS	**PRI**	**covS**	**covU**	**cases**
POLAR*DEMAND*UNFAIR*~INFO	0.920	0.820	0.604	0.027	1, 18; 12
~CONCERN*DEMAND*UNFAIR*~INFO	0.920	0.820	0.605	0.054	23, 24; 1, 18
~POLAR*CONCERN*DEMAND*UNFAIR*INFO	0.909	0.752	0.262	0.027	4
M1	0.929	0.859	0.685		

Where, in standard QCA notation, the symbol '~' means 'absence of', '+' means 'or', '' means 'and'.

However, the conservative solution remains somewhat complex. For comparison, the parsimonious solution, which also has good parameters of fit (consistency=0.934, PRI=0.876, sufficiency coverage=73.7%), involves only the combination of DEMAND* UNFAIR which appears in all solution pathways of conservative solution. This raises the question of whether

a viable intermediate solution might also exist. Doing so requires introducing directional expectations, which essentially represent additional reasoning about the direction in which conditions are expected to operate, or in other words, "theory-guided hunches" (Schneider & Wagemann, 2012). Given the ambivalent role of climate change concern in the conservative solution, we set a directional expectation that this condition reduces the likelihood of contestation. This leads to an intermediate solution with good parameters of fit (consistency=0.929, PRI=0.859, sufficiency coverage=68.5%) and three solution pathways: (i) POLAR* DEMAND* UNFAIR (i.e., presence of socio-political polarization, demandingness, and unfairness), (ii) ~CONCERN* DEMAND* UNFAIR (i.e., presence of demandingness and unfairness, and absence of climate change concern), and (iii) DEMAND* UNFAIR* INFO (i.e., presence of demandingness, unfairness, and information provision) (Table 4.6). This suggests that the core combination DEMAND*UNFAIR combines with another condition (either socio-political polarization, lack of climate change concern, or information provision) to produce policy contestation, although information provision appears with policy contestation in only one case (Table 4.6).

Table 4.6. Intermediate solution for the full sample.

Directional expectations	**Solution models**					
Climate change concern (inverse to outcome)	**M1:** POLAR*DEMAND*UNFAIR + ~CONCERN*DEMAND*UNFAIR + DEMAND*UNFAIR*INFO => OUTCOME					
		inclS	**PRI**	**covS**	**covU**	**cases**
	POLAR*DEMAND*UNFAIR	0.920	0.820	0.604	0.027	1, 18; 12
	~CONCERN*DEMAND*UNFAIR	0.920	0.820	0.605	0.054	23, 24; 1, 18
	DEMAND*UNFAIR*INFO	0.847	0.668	0.288	0.027	4
	M1	0.929	0.859	0.685		

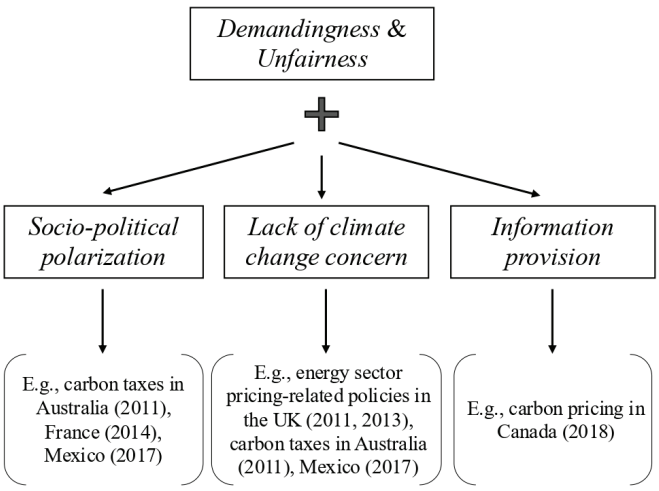


Figure 4.1. Summary of the conditions under which contestation over hard climate policy is observed to occur in the full sample (i.e., *demandingness* and *unfairness* combine with other conditions).

4.2.2 Analysis of subgroups

This sub-section now considers solution pathways for policy instrument type subgroups: (i) pricing/taxation (n=15), and (ii) regulations and phase-outs (n=12). The first subgroup reflects a key category of hard climate policy which is often believed to be at risk of contestation, and the second subgroup reflects policy aimed towards restricting specific activities. Ideally, further disaggregating regulations and phase-outs would be worthwhile, although we have too few cases to do this.

For pricing/taxation policies, we find that none of the five conditions is individually necessary for the outcome. Some combinations of conditions provide potentially meaningful SUIN conditions with acceptable parameters of fit (i.e., inclN ≥ 0.9; RoN and CovN ≥ 0.6): socio-political polarization and demandingness; socio-political polarization and unfairness; and absent climate change concern and unfairness. Nonetheless, as previously, we choose not to introduce higher-order conditions to retain conceptual clarity over the originally posited conditions. Analysis of sufficiency leads to a conservative solution of the same form as the conservative solution for the full sample. The section therefore seeks to derive a further intermediate solution. Here, directional expectations for two conditions are introduced: climate change concern (as for the analysis of the full sample), and information provision which are expected to reduce the likelihood of contestation, despite its potential conceptual and empirical ambivalence (see Methods). These directional expectations are introduced stepwise (Table 4.7).

Both M1 and M2 (intermediate solutions for the subgroup pricing/taxation policies) seem plausible. M1 is similar to the intermediate solution for the full sample, but with the information condition reverse in the solution pathway in which it appears. The combination DEMAND* UNFAIR remains in each pathway, and POLAR remains in place. M2 simplifies the solution model substantially, leaving only a single combination DEMAND*UNFAIR as the solution pathway, suggesting that it is a consistent core combination explaining policy contestation for this subgroup. It explains all five cases with policy contestation (i.e., outcome present) with good parameters of fit (inclS=1.000, PRI=1.000, covS=75.2%). M2 is also equivalent to the parsimonious solution, for both the full sample and this subgroup, suggesting that it is a robust minimal solution model.

Table 4.7. Intermediate solutions for the subgroup pricing/taxation policies.

Directional expectations	Solution models					
Climate change concern (inverse to outcome)	**M1:** POLAR*DEMAND*UNFAIR + ~CONCERN*DEMAND*UNFAIR + DEMAND*UNFAIR*INFO => OUTCOME					
		inclS	**PRI**	**covS**	**covU**	**cases^**
	POLAR*DEMAND*UNFAIR	1.000	1.000	0.583	0.043	1(1), 10(18); 6(12)
	~CONCERN*DEMAND*UNFAIR	1.000	1.000	0.542	0.043	14(23); 1(1), 10(18)
	DEMAND*UNFAIR*INFO	1.000	1.000	0.208	0.043	2(4)
	M1	1.000	1.000	0.669		
Climate change concern and *Information provision* (inverse to outcome)	**M2:** DEMAND*UNFAIR => OUTCOME					
		inclS	**PRI**	**covS**	**covU**	**cases^**
	DEMAND*UNFAIR	1.000	1.000	0.752	-	14(23); 2(4); 1(1), 10(18); 6(12)
	M2	1.000	1.000	0.752		

^Case no. refers to subgroup categorization, with original case no. (from Table 4.2) in parentheses.

For regulation and phase-out policies, the analysis finds that none of the five conditions is individually necessary for the outcome. There are also no meaningful SUIN conditions. Analysis of sufficiency reveals a truth table with contradictory rows for two of three cases of policy contestation. Consequently, the solution model offers only an idiosyncratic pathway explaining one case of policy contestation, rendering analysis non-informative, and we do not proceed further with the analysis for this subgroup.

4.3 DISCUSSION

The results provide strong evidence for the role of some conditions in explaining policy contestation, and moderate evidence for others. Most notably, the combination of two policy-specific conditions – demandingness and unfairness – stands out as central in explaining policy contestation among both the full sample and in the subgroup analysis of pricing/taxation policies. This combination of conditions appeared in the parsimonious solution and in every solution pathway in the intermediate and conservative solutions. In this sense, our findings align with widespread expectations among climate policy scholars in work on policy acceptance/support. First, that the more demanding a policy is, the more likely it is to trigger contestation (Konc et al., 2022; Lachapelle & Paterson, 2013; Pahle et al., 2017). Second, that the more unfair a policy is (or is seen to be), the more likely it is to trigger contestation (Bergquist et al., 2022; Dechezleprêtre et al., 2022; Drews & Bergh, 2015). Nonetheless, this confirmatory finding is important given the potential for difference between ex-ante and ex-post findings (see Introduction), which helps bolster existing expectations with ex-post evidence. Yet, at the same time, both of these conditions involve objective aspects (e.g., policy design) as well as interpretive aspects (e.g., perceptions and meanings of policy). Hence, a key

need in studying climate policy contestation is to examine why and how a sense of excessive demandingness and/or unfairness arises in a specific case (or not). This might involve other factors shaping complex processes by which a sense of demandingness and unfairness arises (e.g., media discourse, elite cues, status of scientific knowledge in debates over climate policy and the potentially legitimating role of scientific advice, peer effects, and individual traits).

Other conditions under analysis – socio-political polarization, climate change concern, and information provision – were also important in different solution pathways. The role of such factors often remains unclear across different cases. For example, while scholars focusing on the politics of policymaking both in climate policy (Mildenberger et al., 2022; Stokes, 2020) and more broadly (Hacker & Pierson, 2014; Patashnik, 2019) would be quick to highlight the significance of polarization, its role remains understudied in analysis of public responses to climate policy. The solution pathways that we identify involving socio-political polarization include cases of carbon tax policies implemented in Mexico (2014), France (2014), Australia (2011), all of which involved volatile outbursts of public discontent (Chapter 3) combination with a sense of policy demandingness and unfairness. The findings suggest that the level of climate change concern could also be important in generating policy contestation. While there is some ambivalence in our findings regarding this condition (e.g., the conservative solution for the full sample), the main message is that lack of climate change concern can, in combination with other factors, produce policy contestation. This aligns with widespread arguments in policy acceptance literature that the more concerned people are, the more willing they are to accept hard policy measures (Dechezleprêtre et al., 2022; Scruggs & Benegal, 2012). However, it is also possible that in some cases high climate change concern could lead to greater sensitivity to policies seen as inappropriate (e.g., unfair) and thus propensity for contestation. Or, the result could just be coincidental since only one case (Canada, 2018) showed this combination, which could be a case where high climate concern sits alongside criticism for other reasons. Lastly, the findings suggest that information provision could be important in generating policy contestation. The absence of information, in combination with other conditions, may lead to policy contestation as seen in the conservative solution for the full sample, although this role dropped away in the intermediate solution raising questions about its importance. Conversely, information provision might trigger contestation by making policy costs more salient even if it also contains information about benefits for target groups (Karapin, 2020, p. 154; Mildenberger et al., 2022).

Therefore, this chapter reveals that the combination of conditions of demandingness and unfairness is likely to be central in explaining contestation over hard climate policy at the post-adoption stage, potentially also in combination with socio-political polarization, lack of climate change concerns and information provision. Crucially, policy contestation is likely to be produced through the combination of these conditions, rather than their individual presence alone. The core explanatory conditions of demandingness and unfairness are policy specific, but socio-political polarization and lack of climate change concerns are contextual

conditions. Thus, the findings suggest that policy contestation arises from both policy-specific and contextual conditions. This can inform work needed to understand causal relations in public responses to climate policy (Ejelöv & Nilsson, 2020; Heyen & Wicki, 2024) by highlighting how explanatory conditions for policy contestation can operate jointly, and the need for interpretive work within a comparative frame that embraces complex socio-political constructs. The solution formulas we identify also offer specific insights for strengthening climate policymaking by addressing particular combinations of conditions that could be relevant in a case.

By elucidating conditions associated with policy contestation based on rich empirical data, we provide a critical check on climate policy debates which are fragmented across fields, cases, and explanatory focus. This is especially valuable from the ex-post perspective, given that much work on public responses is from an ex-ante perspective, and thus not readily able to capture the ways in which public preferences and perceptions may be re-shaped through struggles over climate policy that continue at the post-adoption stage. This chapter thereby contributes to ground truthing ex-ante claims about factors that are important for public acceptance and policy support. The finding is broadly positive in this regard, as such ex-ante work largely aligns with our ex-post analysis, provided that it takes on board contemporary insights about the central role of demandingness and unfairness, and gives attention to other important conditions such as socio-political polarization. However, what is likely to be important looking forward is to further embrace interpretivist approaches, rather than racing too quickly towards neat methodological designs (often individual-level surveys) at the expense of efforts to unravel complex and interconnected conditions shaping public responses to policy in real-world settings. In other words, we need greater attention to complex socio-political constructs and processes not only those measurable at an individual level.

Beyond identifying conditions involved in producing post-adoption policy contestation, our findings also highlight the importance of configurational causation in explaining policy contestation. Individual conditions did not explain the outcome, only conditions in combination. For example, our intermediate and conservative solutions show that conditions of demandingness and unfairness (which also comprise the parsimonious solution) were co-present in all solution pathways, with different solution pathways also involving other additional conditions: socio-political polarization, lack of climate change concern, and information provision. By revealing the importance of conjunctural causation, this work helps to show how certain conditions might play different roles in different cases, and thereby the need to consider conditions for policy contestation jointly rather than individually.

Overall, this chapter contributes to the field of climate policy through a novel and timely medium-N explanatory analysis of the conditions under which policy contestation occurs. This informs contemporary debates about policy contestation and backlash with comparative ex-post insights. We develop an approach to study this challenging issue focusing on

hard climate policy, drawing out insights beyond individual policy instrument types (such as carbon pricing), while also opening possibilities for further comparison between policy instrument types. In doing so, we also modestly contribute to addressing the over-representation of Global North cases in climate policy analysis as around 30% of our cases are in the Global South. The medium-N approach complements both small-N analysis by widening comparison, and large-N analysis through its interpretive approach combining multiple sources of heterogeneous quantitative and qualitative data sensitive to context. Specifically regarding QCA, the chapter embraces the qualitative core of QCA as both method and research technique, as called for by scholars in this field (Pagliarin et al., 2023; Schneider & Wagemann, 2012) by employing set theoretic logic in design, calibration, analysis, and reflection. The chapter thereby contributes to rigorous and ambitious use of QCA in climate policy and wider policy analysis.

There are several avenues for further research. The set of conditions could be expanded, such as by adding various excluded conditions (e.g., overlapping economic grievances, trust, prior contestation, disasters, cost visibility, and policy formulation process), or some current conditions could be disaggregated further, for example, different types of polarization (ideological, affective) or aspects of unfairness (e.g., procedural, distributive). The set of cases could also be expanded, especially to strengthen the focus on regulation and phase-out instruments. Future work should also examine why and how a sense of excessive demandingness and/or unfairness arises in specific cases (or not), which involves considering both objective policy content attributes as well as perceptions and meanings generated within political debates.

Another important area for future work is to examine the effects of policy contestation on policy outcomes and life course. This could inform debates over policy dismantling – that is, "the cutting, diminution or removal of existing policy" (Jordan et al., 2013) – by focusing on a subset of cases of dismantling linked to abrupt mass public contestation complementing the typical focus on strategic elite drivers, and by examining the presence and forms of dismantling in the wake of different public responses (e.g., non-acceptance, backlash). For example, among cases in our sample, carbon pricing policies in Canada, France, and Mexico were revised in the aftermath of policy contestation yet repealed in Australia. Elsewhere, scholars have argued that policy outcomes following backlash could vary from no change to weakening or repeal (Patashnik, 2023; Patterson, 2023). Another opportunity is to examine the impacts of policy contestation on future policymaking (e.g., the role of contestation as a source of policy feedback) which could help to understand how public responses to specific policies influence longer-term climate policy development trajectories. However, while unravelling associations between policy contestation and policy dismantling is intriguing, it is also likely to be challenging and require rich case analysis.

More broadly, analyzing the conditions for policy contestation creates new opportunities for climate policy by suggesting that a focus on tempering contestation may be useful instead of

the typical (but challenging) goal of securing acceptance or support for climate policy. For example, contestation over climate policy may grow in the future due to increasing ambition, challenging climate policy scholars and practitioners to consider how to respond to contestation. Finding ways to reduce contestation enough to achieve 'sufficiently' acceptable climate policy could be a worthwhile goal, and understanding the drivers of contestation is a stepping stone in this direction.

4.4 METHODS

Qualitative comparative analysis (QCA) is used to examine possible associations between our posited conditions (both individually and in combination) and the outcome of policy contestation. QCA is a set-theoretic method which assesses the co-presence of conditions and outcomes, thereby helping to identify which conditions could contribute to explaining an outcome through their association (Ragin, 2009; Schneider & Wagemann, 2012). QCA does not assess causation per se but can provide evidence to inform causal reasoning in broader argumentation. It builds on case study logic where close attention is given to understanding which combinations of conditions produce an outcome, and extends this logic to be able to study a larger number of cases. It thereby reflects a middle ground between qualitative and quantitative approaches that helps to systematically compare rich individual cases. It is useful when explanatory conditions are complex constructs requiring interpretive sensibility informed by different available sources of data, and where conjunctional causation (i.e., combinations of conditions producing an outcome) and equifinality (i.e., multiple causal pathways producing an outcome) could be important (Schneider & Wagemann, 2012). Conditions and outcome(s) are measured by scoring their degree of presence in a case. Fuzzy-set QCA (fsQCA), which we use here, enables scoring the degree of presence of conditions/outcomes in a graduated manner (e.g., 'fully in', 'partially in', or 'fully out' of a set) using consistent criteria. Overall, we employ QCA as both a research approach and a technique (following Schneider & Wagemann, 2012, p. 318) by designing data collection to feed into calibration of conditions on a set theoretic basis involving multiple sources of heterogeneous data to enable an in-depth qualitative understanding of the cases, examining different possible solutions and their implications, and from the outset considering the possibility of conjunctural causation and equifinality due to potentially diverse dynamics of policy contestation.

The following subsections discuss: (i) conceptual design focusing on policy contestation as the outcome, conditions considered, and excluded conditions; (ii) case selection; (iii) operationalization; (iv) analysis; and (v) robustness considerations.

4.4.1 Policy contestation as an outcome

The outcome of interest is post-adoption policy contestation. The term 'contestation' encompasses a variety of disputes over policy (Schaub, 2021) which could range from disagreement over certain features, to outright mobilization against it (Verhoeven et al., 2022). Contestation is distinguished from 'opposition' as the latter often suggests a focus on organized activity (such as party politics and coalitions) (Hess & Renner, 2019) , whereas the former leaves open the degree and form of negative response among mass publics.

By contestation, this chapter refers to negative responses to adopted climate policy among mass publics (and possibly also other actors) involving distinctly negative sentiment that may or may not be coupled with mobilization against the policy. Scholars of public responses to climate policy discuss how public responses to a policy can vary across a spectrum from support to opposition (Batel et al., 2013; Dermont et al., 2017; Wolsink, 2018). In the middle of this spectrum is a mixed zone, where ambivalent response (e.g., somewhat positive or somewhat negative) or perhaps even an absence of clear response (e.g., due to lack of awareness) can occur. For example, PytlikZillig et al. refer to a "zone of policy tolerance" where policies may be explicitly or implicitly tolerated, even if they are not necessarily viewed favorably (2018, p. 92). Chapter 3 categorizes policy responses among mass publics into four types (backlash, non-acceptance, acceptance, and support). Looking across this spectrum, we demarcate those involving contestation from those which are (broadly) non-contested (Figure 4.2). This also enables parsing empirical responses into a fuzzy set outcome score by giving each category a qualitative code corresponding to the degree of contestation (also see Case selection).

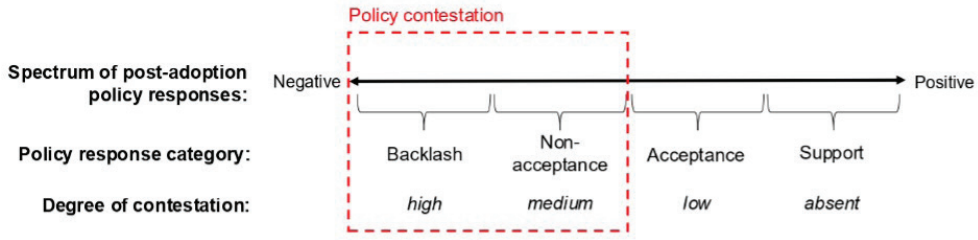


Figure 4.2. Delineating policy contestation.

4.4.2 Conditions for post-adoption policy contestation

A variety of possible socio-political conditions that could be associated with post-adoption policy contestation is identified. This includes both policy content and context-related conditions (M. Bergquist et al., 2022; Drews & Bergh, 2015; Geet et al., 2021), because it is important to consider not only what is contested (i.e., policy content) but also the context within which contestation occurs (Ingold et al., 2019, pp. 3–4). Context-related conditions involve the characteristics of a broader policy environment that might condition policy contestation. This chapter specifically considers: (i) socio-political polarization, and (ii) climate

change concern. Policy content conditions involve policy design features influencing the costs or other burdens associated with a policy as perceived by mass publics. This work specifically considers: (iii) policy demandingness, (iv) policy unfairness, and (v) information provision. These conditions are summarized in Table 4.1 and further explained individually next. This chapter considered but excluded several other conditions as also explained next. Importantly, climate change concern and information provision could have a directionality opposite to the other conditions. This reflects the conceptual logic of QCA, which emphasizes that the presence and absence of a condition is not necessarily inverse, and empirically it is more meaningful to measure the presence of these conditions than their absence.

Table 4.1. Socio-political conditions for post-adoption policy contestation.

	No.	Condition	Condition ID	Description	Reasoning	References
Context-related conditions	1	Socio-political polarization	POLAR	Presence of socio-political polarization	Polarization in a society may increase the chances of policy contestation as new policies become subject to pre-existing oppositional divides.	
	2	Climate change concern	CONCERN	Relative level of climate change concern	Concern over climate change among mass publics may reduce policy contestation due to increased willingness to support policy actions taken.	(M. Bergquist et al., 2022; Drews & Bergh, 2015, pp. 858–859; Ejelöv & Nilsson, 2020)
Policy content related conditions	3	Policy demanding-ness	DEMAND	Presence of high demands on target groups made by a policy	High policy costs (e.g., material/financial, behavioral change, or other demands on policy target groups) may increase policy contestation by triggering specific criticisms.	(Drews & Bergh, 2015; Groot & Schuitema, 2012; Nachtigall et al., 2022; Pahle et al., 2017)
	4	Unfairness	UNFAIR	Presence of features or perceptions that a policy is unfair	Policies designed/ perceived as unfair may increase policy contestation due to moral judgements that a policy is unbalanced or mistargeted.	(M. Bergquist et al., 2022; Dechezleprêtre et al., 2022; Dreyer et al., 2015; Fairbrother, 2017; Maestre-Andrés et al., 2019; Povitkina et al., 2021)
	5	Information provision	INFO	Good quality information campaigns for a policy	Information provision for a policy may reduce policy contestation by generating understanding or increase policy contestation by elevating policy salience in debates.	

Condition 1: Socio-political polarization

Decision-making in a polarized society may be prone to contestation as new policies become subject to pre-existing oppositional divides producing opposition. Polarization can be related to political beliefs and ideologies (ideological polarization) or hostility and negative emotions towards political opponents (affective polarization) (Iyengar et al., 2018; Judge et al., 2023), which can overlap in complex ways (Riera & Madariaga, 2023). Polarization can impact policy making through undermining the ability to generate and sustain agreement (Judge et al., 2023). This could persist at the post-adoption stage by, for example, mobilizing publics through negative emotions(Ellger, 2024) or undermining trust in government decisions. Climate policy scholars argue that mass public views can be shaped by elite (Birch, 2020; Lockwood, 2013) and ideological (Marcos et al., 2023; Smith et al., 2024) polarization, and political party stances more generally (Kammermann & Dermont, 2018; Stadelmann-Steffen & Eder, 2021). A simplifying assumption is made to treat socio-political polarization as a single condition because of difficulties distinguishing between ideological and affective polarization across all countries in our sample, and within available data (e.g., interviews) especially within heated policy debates. Further disaggregation of polarization could be a next step if this condition is revealed as important in our empirical analysis.

Condition 2: Climate change concern

Concern over climate change among mass publics may reduce the likelihood of policy contestation due to increased willingness among people to support policy actions taken, even when these entail costs or other burdens. Lack of concern over climate change could, therefore, have the opposite effect increasing the likelihood of policy contestation. Concern over climate change is generally thought to increase the likelihood of climate policy support and acceptance (Bergquist et al., 2022; Drews & Bergh, 2015, pp. 858–859; Ejelöv & Nilsson, 2020), even though support for specific policies may differ. Moreover, support/acceptance is heterogeneous within a society (Rhodes et al., 2017). Climate change concern can involve various aspects (e.g., belief in anthropogenic climate change, risk perception and expectation of consequences, attribution of responsibility). Here, the focus is on the relative prioritization of climate change concern within a society among other policy concerns. It is assumed that if climate change is of high relative public concern, then the likelihood of contestation towards hard climate policies will be lower because people are more likely to believe that climate policy measures are needed.

Condition 3: Demandingness

High policy costs or other burdens on policy target groups may increase the potential for policy contestation by triggering specific criticisms among those affected and/or wider audiences. For example, this can include material/financial costs, expectations for behavior change, or symbolic costs linked to peoples' identities and values. In other words, the more demanding policy expectations are for people, as they experience and perceive a policy, the more likely policy contestation may be. Issues of policy demandingness are often thought to

be a central factor influencing the acceptability of climate and environmental policy measures (Drews & Bergh, 2015; Groot & Schuitema, 2012; Pahle et al., 2017). By policy demandingness, this chapter refers to the extent to which a policy makes demands on target groups. Often this is thought about in terms of policy stringency which refers to "the exact degree of ambitiousness underlying the government's efforts to address a given issue" (Steinebach et al., 2024). For climate policy, stringency involves "the degree to which climate actions and policies incentivize or enable GHG emissions mitigation at home or abroad" (Nachtigall et al., 2022, p. 6) or "the "cost" imposed on polluting or other environmentally harmful activity" (Botta & Koźluk, 2014a, p. 6). Thus, stringency usually focuses on costs/burdens in terms of the strictness of rules and requirements specified by a policy. Policy demandingness, on the other hand, focuses on the overall demand on target groups (through imposing burdens, effort, and compliance requirements). A seemingly high cost (stringency) might not always be experienced as demanding, and vice versa (as a policy that might not seem burdensome might nonetheless be perceived as such by target groups). Thus, policy demandingness needs to be assessed interpretively considering both policy stringency (i.e., objective rules/requirements – for which this chapter draws on the OECD Climate Actions and Policies Measurement Framework (Nachtigall et al., 2022)) and perceptions or experiences of target groups through interviews and secondary materials (e.g., media articles, other secondary materials).

Condition 4: Unfairness

Policies perceived as unfair may increase policy contestation due to moral judgements among mass publics that policy is unbalanced or mistargeted in society. Fairness is widely identified as a factor influencing climate policy support and acceptance (Bergquist et al., 2022; Bergquist et al., 2020; Drews & Bergh, 2015; Dreyer et al., 2015; Ejelöv & Nilsson, 2020; Maestre-Andrés et al., 2019) and has been observed to play a key role in contestation over climate policy (Colantone et al., 2023; Driscoll, 2023). In response, scholars commonly call for redistributive mechanisms to ensure fairness (Drews & Bergh, 2015, p. 862). Yet, others have urged caution about whether such prescriptions hold across non-western countries where beliefs about environmentalism and redistribution may be differently organized (Lim & Tanaka, 2020). This chapter nonetheless focuses on distributional fairness because of its prominence in climate policy thinking and because it provides a basis for cross-case comparison, while also considering perceptions of fairness through interpreting multiple sources of data (e.g., interviews, media articles, policy documents). The chapter refers to 'unfairness' (as a negative condition) given the interest in understanding conditions of policy contestation.

Condition 5: Information provision

Information provision for a policy may decrease policy contestation by increasing understanding among mass publics, but it could also increase policy contestation by increasing policy salience which could make it a target of criticism (e.g., under the simultaneous condition of socio-political polarization). The importance of information provision for policy acceptance is often asserted in reviews (Maestre-Andrés et al., 2019) and surveys (Deche-

zleprêtre et al., 2022) of climate policy acceptance. However, Rhodes et al. (2014) show that providing information on policy effectiveness may not translate into higher support, and Hulkkonen et al. (2024) suggest that the effect of tailored information provision on policy attitude also depends on other factors (e.g., demographic attributes, perceptions of vulnerability). Moreover, Mildenberger et al. (2022) found that exposure to individualized information about a respondent's actual climate rebate could lead to people overestimating costs rather than benefits depending on their political context. Thus, the role of information provision is unclear, requiring consideration of both policy content, as well as interpretation of how this is understood by people in practice (e.g., interviews, media).

Excluded conditions

This chapter also considered several other policy content and context related conditions that could be associated with policy contestation but excluded them for various reasons. In addition to substantive reasons for excluding each individual condition as explained below, a further overall need was to identify the conditions that are most salient to our study to avoid including too many conditions relative to the number of cases. This is a key issue for our specific method of QCA (Glaesser, 2023, pp. 3487–3488), but it is of course also a critical consideration in quantitative research more generally to ensure sufficient variation and avoid overfitting. Good QCA practice therefore typically involves limiting the number of conditions, with around 4-5 conditions being appropriate for our case sample size. Nonetheless, these excluded conditions also indicate important aspects which future work could further consider.

Excluded context related conditions include inequality, overlapping economic grievances, democratic quality, trust, type of political institutions, prior contestation, and disasters. Inequality is often invoked in discussions of public discontent. However, including it here risks overlap with conditions of unfairness and demandingness, which are the more proximate ways in which inequality might be expected to translate into policy contestation (i.e., through criticisms that a policy is unfair or too demanding for certain groups). Scholars in political sociology increasingly highlight relative deprivation or decline in social status (Gidron & Hall, 2017) as important in producing discontent linked to inequality, yet these are difficult to comparatively measure. Overlapping economic grievances (e.g., economic crisis) could increase the propensity of policy contestation (Abou-Chadi & Kayser, 2017). Although, this is likely to have complex links to a specific climate policy, and we may also expect to see such concerns manifest through conditions of policy demandingness and/or unfairness, thus we exclude it from this study. Democratic quality could affect opportunities or propensity for policy contestation, although the OECD countries in our sample do not vary greatly in this regard (i.e., it is a relatively homogenous background condition). Trust could reduce the propensity for policy contestation if target groups trust policymaking processes. However, it is difficult to tie trust to a specific policy process as it typically involves a broader generalized sentiment. Moreover, people (or other actors) may trust policymaking process but still op-

pose specific policies, or distrust them yet accept specific policies for other reasons. Therefore, it is excluded here. Political institutions are important in comparatively explaining climate policy adoption, such as representation (proportional or majoritarian) and interest group intermediation (Finnegan, 2022). However, it less clear how such institutions might affect post-adoption policy contestation. Industry or interest groups might mobilize contention into the public sphere (Mildenberger, 2020), which could be more likely under antagonistic majoritarian systems than proportional corporatist ones, but this would probably also be case specific and contingent, and thus difficult to compare generally. Prior protests might increase the likelihood of policy contestation by lowering uncertainty and transaction costs for contestation in a new situation. Although others have considered this condition in studying local energy projects (McAdam & Boudet, 2012), this chapter excluded it due difficulties in understanding its role at a national level. Natural disasters might dampen policy contestation due to increased concern about climate change and/or demand for climate action. However, this chapter excluded this as a condition because of difficulties comparing disasters (which could vary in type, scale, impact, and affected groups), understanding the complex ways in which disasters take on social and political meaning in specific contexts, and assessing variation in salience and timing in relation to policy processes.

Excluded policy-related conditions included visibility of costs, inclusion in policy formulation, and proximity to elections. Visibility of costs for target groups could increase the potential for policy contestation (Pierson, 1993). However, this is difficult to comparatively assess across cases, even when costs are notionally visible (such as price breakdowns on bills) due to the many ways in which costs might or might not take on meaning within specific policy debates. Inclusion in policy formulation may decrease the likelihood of policy contestation by incorporating peoples' concerns and/or increasing legitimacy. However, again, this is difficult to assess comparatively since forms of inclusion could vary between contexts and levels of governance (Colantone et al., 2023; Driscoll, 2023; Stadelmann-Steffen & Dermont, 2021), and is especially challenging to measure at a national level. Proximity to elections could create political opportunities for policy contestation (McAdam & Boudet, 2012). Although, while this could be important when studying strategic contentious action, we expect that post-adoption policy contestation would largely depend on when policy is adopted and/or ramped up, provoking a response, rather than on an election cycle per se. Moreover, such timing could play different roles in different situations, making comparability difficult.

4.4.3 Case selection

Cases in our study comprise hard climate policies (i.e., pricing/taxation, regulation, and phase-outs) at the national level in OECD member countries between 2009-2022. The focus is on these countries as our initial case population because they are industrialized countries which arguably should be expected to take on a leadership role advancing domestic climate policy action. This chapter examines a 14-year period since 2009 when the Copenhagen Cli-

mate Summit (COP15) occurred which also captures a roughly equal period before and after the 2015 Paris Agreement when debates over domestic action grew especially prominent.

This analysis builds on previous work in Chapter 3 where 50 hard climate policy packages were systematically sampled across 21 OECD member countries to assess variation in public responses to hard climate policy and the prevalence of post-adoption contestation without sampling on the dependent variable. The basis for this sampling was the open access Climate Policy Database (https://climatepolicydatabase.org) (Nascimento et al., 2022) , which involved: (i) screening and re-categorizing policy instruments to distinguish hard policy types, (ii) selecting two important sectors: general frameworks policies, and energy and heat policies, (iii) filtering for policies that impose costs on mass publics, and (iv) consolidating closely related policies into policy packages where appropriate. Responses were categorized into four types (support, acceptance, non-acceptance, backlash) using a typology of disapproval (involving indicators of policy dis-favorability and government dissatisfaction) and mobilization (involving indicators of participation, sustained action, and specificity in focus) using indicators measured by interpretively coding systematically sampled country-specific newspaper media (Chapter 3).

This chapter now seeks to explain the conditions under which contestation occurs. First, this chapter recategorizes the outcome values into a fuzzy set presence measure of policy contestation. Then, the cases are screened further to exclude cases that de facto do not impose significant costs or constraints on target groups (as established through further analysis of policy documents and consultation with policy experts). As a result, 27 policy package cases are retained across 16 OECD member countries (Table 4.2).

Table 4.2. Overview of cases.

Case no.	Country	Policy (package)	Year	Focal Policy Instrument	Response category	Case ID
1	Australia	Clean Energy Act	2011	Taxes/pricing	Backlash	B_Aus2011
2	Australia	Safeguard Mechanism	2016	Regulation	Acceptance	A_Aus2016
3	Austria	Energy efficiency Act	2014	Regulation	Acceptance	A_Austr2014
4	Canada	Federal Carbon Pricing Approach and Backstop System	2018	Taxes/pricing	Backlash	B_Can2018
5	Chile	Carbon Tax	2014	Taxes/pricing	Acceptance	A_Chile2014
6	Chile	Coal power phase-out plans	2021	Phase out	Acceptance	A_Chile2021
7	Colombia	Law 1819 creating the National Carbon Tax	2016	Taxes/pricing	Acceptance	A_Col2016
8	Costa Rica	Decree No. 41578 extending the national moratorium on oil exploration and exploitation	2019	Phase out	Acceptance	A_CostR2019
9	Germany	Greenhouse Gas Reduction Quota	2015	Regulation	Acceptance	A_Deu2015

Table 4.2. Overview of cases. (*continued*)

Case no.	Country	Policy (package)	Year	Focal Policy Instrument	Response category	Case ID
10	Germany	Fuel Emissions Trading Act (BEHG)	2019	Taxes/pricing	Acceptance	A_Deu2019
11	Germany	Coal Exit Law (Kohleausstiegsgesetz)	2020	Phase out	Backlash	B_Deu2020
12	France	Carbon Charge Component	2014	Taxes/pricing	Backlash	B_Fran2014
13	France	Law on the End of Exploration and Exploitation of Hydrocarbons and Diverse Dispositions Related to Energy and the Environment	2017	Phase out	Acceptance	A_Fran2017
14	Japan	Tax for Climate Change Mitigation	2012	Taxes/pricing	Acceptance	A_Jap2012
15	South Korea	Transportation-Energy-Environment Tax	2015	Taxes/pricing	Acceptance	A_Kor2015
16	South Korea	Emissions Trading Scheme	2015	Taxes/pricing	Acceptance	A_Kor2015
17	Italy	Abrogation of the legal regime applying to nuclear energy production	2011	Phase out	Support	S_Ital2011
18	Mexico	Carbon Tax	2014	Taxes/pricing	Backlash	B_Mex2014
19	Mexico	Energy Transition Law	2015	Regulation	Support	S_Mex2015
		Guidelines establishing and issuing Clean Energy Certificates	2015	Regulation	Acceptance	
20	Mexico	Emissions Trading System	2019	Taxes/pricing	Acceptance	A_Mex2019
21	Turkey	Emissions Trading Scheme	2011	Taxes/pricing	Acceptance	A_Turk2011
22	Switzerland	CO_2 Act	2013	Taxes/pricing	Acceptance	A_Swiss2013
23	UK	Energy Act	2011	Taxes/pricing	Non-acceptance	N_UK2011
24	UK	Energy Act	2013	Regulation^	Non-acceptance	N_UK2013
		Carbon Price Floor	2013	Taxes/pricing	Acceptance	
25	UK	Finance Act	2020	Taxes/pricing	Acceptance	A_UK2020
		The Greenhouse Gas Emissions Trading Scheme Order	2020	Taxes/pricing	Acceptance	
26	United States	Clean Power Plan	2014	Regulation	Support	S_US2014
27	United States	Affordable Clean Energy (ACE)	2019	Regulation	Backlash	B_US2019

^Taken as dominant policy instrument type for this policy package.

4.4.4 Operationalization

A key first step for conducting fsQCA is measuring and calibrating the outcome and conditions. This refers to the procedure of assigning a set presence/absence score (or partial presence/absence) for each outcome and condition. In other words, the degree to which a certain condition or outcome is present in each case. For example, a case with a high level of socio-political polarization would be deemed fully (or nearly fully) in the condition set 'socio-political polarization', whereas a case with distinct but lower level of socio-political polarization would be only partially in this set, and a case with little or no distinct socio-political polarization would be deemed outside of the set. Using consistent decision criteria, conditions and outcomes across all cases in a sample can be scored. Such decision criteria can aggregate different sources of evidence, including varying sources of evidence for different cases, into a synthetic criteria-based scoring decision. However, it is important to avoid over-claiming the level of precision especially when working with complex constructs, qualitative and/or mixed sources of data, and differing combinations of data for different conditions/outcomes and/or cases. Therefore, a common approach is to delineate a limited number of qualitative thresholds (anchor points) which represent points along a spectrum of fuzzy set presence. This is done following the typical convention among fsQCA scholars using four thresholds to avoid 'middling' by ensuring that every fuzzy presence score is either distinctly more in or more out of the set, rather than on the fence. These thresholds (i.e., anchor points) range from 0-1 where: 1=fully present, 0.67=mostly present, 0.33=somewhat present, and 0=not present. This retains a qualitative disposition while also rendering complex constructs comparable across cases.

For the outcome scores, we categorize each case (Table 4.2) for the presence of policy contestation as: backlash=1, non-acceptance=0.67, acceptance=0.33, and support=0 (see Conceptual design). The prior categorization in Table 4.2 involved an extensive systematic media analysis drawing on multiple case-specific newspapers and validation steps (Chapter 3). Therefore, it is assumed that this input provides a valid assessment which we now re-categorize here. The chapter also pays careful attention through the expert interviews to check that our prior outcome assessments based on secondary data are appropriate, which were indeed confirmed through the interviews.

For the condition scores, first, anchor points are derived for each condition based on our reasoning about how each condition would manifest if fully, partially, or not present (Table 4.3). Then the analysis draws on multiple sources of evidence to score conditions in each case, centering on original primary expert interviews (n=62), supplemented by media articles, secondary datasets, academic and grey literature, and policy documents (Figure 4.3). The goal is to enable richly informed analytical judgments for each condition. In all cases, the analysis draws on interview data as well as media articles systematically sampled in prior analysis (Anisimova & Patterson, 2024) and secondary datasets where available. When substantial gaps remain that prevent scoring of a condition in a case, we then interrogate academic and

grey literature, and policy documents, to address these gaps (Figure 4.3). A summary of data sources used for scoring each condition is provided in Supplementary note 2, and an illustrative coding example is provided in Supplementary note 3.

Table 4.3. Criteria for scoring the fuzzy set presence of conditions.

Condition	**Anchor points**			
	Fully in set ***(score: 1)***	**Mostly in set** ***(score: 0.67)***	**Mostly out of set** ***(score: 0.33)***	**Fully out of set** ***(score: 0)***
Socio-political polarization	Party polarization is entrenched and causes major difficulties for government seeking to pass legislation (e.g., deadlock, intense criticism) and deep polarization is also apparent in society.	Party polarization is persistent and causes difficulties for government seeking to pass legislation but agreement is sometimes found, and notable polarization is also apparent in society.	Party polarization can occur but ebbs and flows and areas of agreements are regularly found, and polarization is somewhat apparent in society.	Party polarization is not a significant issue, and polarization is not prominent in society.
Climate change concern	High climate change concern (within the top 3 common public concerns sustained over time).	Moderate climate change concern (within the top 10 common public concerns sometimes gaining moderate traction).	Low climate change concern (identifiable within the top 10 common public concerns but with low traction).	Very low climate change concern (not within top 10 common public concerns).
Demandingness	Policy imposes very high costs (e.g., economic, behavioral, symbolic), even if compensated or applied gradually.	Policy imposes significant costs (e.g., economic, behavioral, symbolic), which are bearable with compensation or other design features.	Policy imposes some costs (e.g., economic, behavioral, symbolic), but relatively low.	Policy does not impose notable costs.
Unfairness	Policy is understood by target groups and wider audiences to be deeply unfair and attention to fairness is absent in policy design.	Policy is understood by target groups and wider audiences to be somewhat unfair with limited attention to fairness in policy design.	Policy is understood by target groups and wider audiences to be only a little unfair with moderate attention to fairness in policy design.	Policy is understood by target groups and wider audiences to be broadly fair with significant attention to fairness in policy design.
Information provision	Extensive information provision to target groups about the policy by government (e.g., credible, comprehensive, sustained).	Notable information provision to target groups about the policy by government (e.g., coherent, but perhaps only once-off or limited outreach).	Some limited information provision to target groups about the policy by government (e.g., fragmented, patchy).	Lacking information provision to target groups about the policy by government.

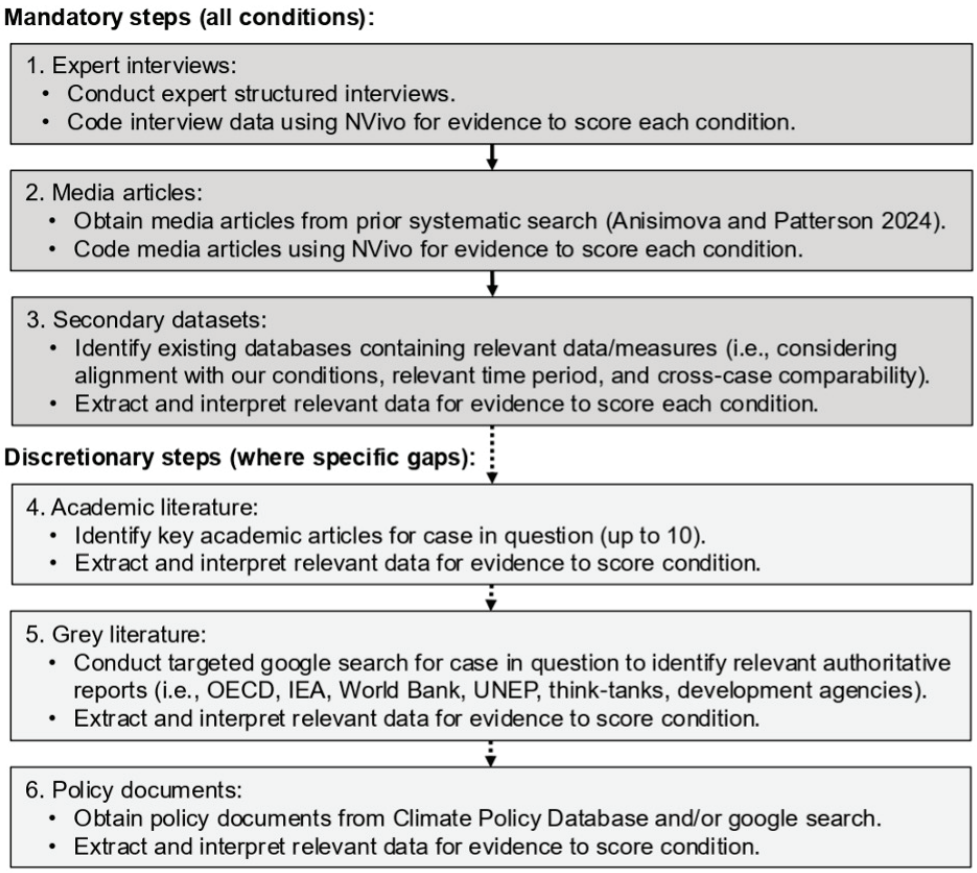


Figure 4.3. Overview of data collection steps to score conditions.

The structured interviews were conducted with national policy experts in all the cases between June 2023 and June 2024 (n=62, average duration 45-60 min) (Supplementary note 4) to gather qualitatively rich, comparable, and ground-truthed insights to inform our QCA. Interview participants were selected due to their knowledge and expertise on specific policy cases and/or as having close knowledge about climate policy with each country. The interviewees are identified primarily through stakeholder mapping drawing on publicly available information about policy experts (such as attendee lists at relevant policy committees and/or expert meetings, media mentions, academic references) as well as snowballing throughout the interview phase. The number of interviews per country ranged from 3-5 depending on several factors: (i) degree of relatedness of multiple policies within a case as co-learning about several policies was common for some policy packages, (ii) knowledge of individual experts who may be knowledgeable about multiple policies, (iii) level of certainty of experts about the information they provide meaning that when low level of certainty remained about some aspects we recruited further participants to address gaps, and (iv) the overall number of policies within a specific country in our sample. Interviews were based on a structured

questionnaire to explore and characterize key conditions in our analysis, while also leaving room to discuss relevant issues openly regarding the overall issue of explaining public responses to climate policy (Supplementary note 5). The interview guide contained 10 fixed questions (supported by structured and spontaneous probing) and several open questions, in a consistent order for all participants.

All relevant data (both primary and secondary) was interpretatively coded for a given case using NVivo (qualitative data analysis software) using the framework of conditions (see Conceptual design). This provides a consistent basis for integrating different sources of data and triangulating to make synthetic judgments to score each condition (Supplementary note 3). The scored (i.e., calibrated) data for all cases is provided in Supplementary note 6.

4.4.5 Analysis

The analysis follows established fsQCA protocol (Oana et al., 2021; Schneider & Wagemann, 2010, 2012) which involves several steps. First, individual necessary conditions are analyzed, which are those that are required in all possible explanations of the outcome. If no conditions are found to be individually necessary, the analysis focuses on SUIN conditions. This refers to "a sufficient but unnecessary part of a factor [i.e., pathway] that is insufficient but necessary for an outcome" (Mahoney, 2008, p. 419), or in other words, conditions (individually or in combinations) involved in producing the outcome but not enough to fully explain the outcome on their own. Second, sufficient conditions are analyzed, which are those that (individually or in combination) are sufficient for the outcome. In other words, this step seeks to identify possibly multiple pathways through which the outcome is produced. fsQCA is carried out using RStudio (version 2024.04.0+735) and the packages 'QCA' and 'SetMethods'.

The standard parameters of fit are applied to results (Duşa, 2020; Oana et al., 2021; Schneider & Wagemann, 2010) for necessity and sufficiency. For necessity these parameters are: (i) inclN (inclusion for necessity) which is the extent to which a condition (or combination) is necessary for the outcome, (ii) RoN (relevance of necessity) which is the empirical relevance of a condition (or combination) through being specifically associated with the presence of the outcome (i.e., not just present in general), and (iii) CovN (coverage of necessity) which is the extent to which a condition (or combination) deemed necessary explains the outcome. For sufficiency, these parameters are: (i) inclS (sufficiency inclusion score) which is the extent to which a sufficient combination of conditions is associated with the outcome, where typically a value ≥0.8 may be considered good, and 0.7-0.79 acceptable, and (ii) PRI (proportional reduction in inconsistency) which is the extent to which combinations of conditions are consistently associated with the outcome, where typically a value ≥0.9 may be considered highly consistent, 0.8-0.89 moderate, and 0.7-0.79 weakly acceptable.

Several possible types of solution types are considered (i.e., conservative, parsimonious, and intermediate solutions). The conservative solution prioritizes reliability and higher consistency scores, the parsimonious solution prioritizes simplicity but accepts lower consistency, and the intermediate solution compromises between both. While the conservative solution can be most appropriate in the first instance because it prioritizes reliability and consistency, seeking the most robust solution given available data, in prioritizing consistency (with limited data), it can still lead to complex solutions. Thus, following QCA practice, the chapter critically reflects over the appropriateness of different possible analytical solutions to derive the most reasonable theoretically informed empirical explanation. The step-by-step results with explanation is provided in Supplementary note 1, also with a crisp set analysis as a sensitivity test.

4.4.6 Robustness

The robustness of the findings is important to consider (i) regarding conceptual and empirical design, and (ii) regarding the analysis approach. First, in terms of design, our five causal conditions are unlikely to be exhaustive. Several other conditions were considered but excluded (see Conceptual design) which could nonetheless be relevant, due to difficulties of data availability or clarity over the causal link to the outcome. As QCA explicitly highlights the challenge of limited diversity inherent to comparison (i.e., where not all possible combinations of conditions are observed empirically) (Glaesser, 2023), it requires being selective about the conditions examined. When measuring and calibrating conditions across diverse case contexts, it was necessary to allow for different forms and combinations of data available. The chapter sought to mitigate this with a standardized procedure for data collection, including primary structured interviews with experts in each case designed specifically for this purpose, combined through triangulation to produce well-reasoned reflective scoring. This helped to ensure relative comparability and to enhance "case intimacy" in calibration (Pagliarin et al., 2023). The approach thus helps to foreground the qualitative core of fsQCA including prioritizing in-depth case knowledge, contextual understanding, and theoretical grounding alongside the technique itself.

Second, in terms of analysis, there is a risk of overfitting to the data with a somewhat high number of conditions relative to the number of cases. This is an important reason why we consider different possible solutions (i.e., conservative, parsimonious, intermediate). Doing so indicates that our findings are likely to be robust because different solution types remain consistent around core elements and with little change in parameters of fit meaning that substantive interpretations do not greatly change for different model specifications (Schneider & Wagemann, 2012). The analysis of the pricing/taxation subgroup aligns with the results for the overall sample, although the regulation and phase-out subgroup cannot be explained. Although, since the solutions and parameters of fit do not change much between the whole sample and pricing/taxation subgroup 1, this also suggests that subgroup 2 may not be entirely different, since otherwise we might expect to see a skewing effect in the overall sample. Nonetheless, further analysis of these subgroups is a useful area for future research to sharpen insights into the reasons for contestation over different hard policy instruments.



Chapter V

Contested but Not Failed: Rethinking the Relationship Between Backlash and Policy Failure in Climate Policy[10]

[10] Under review with the Journal of Policy Studies (submitted March 2026).

ABSTRACT

Policy backlash is a recurrent empirical phenomenon that is receiving growing attention from policy scholars and practitioners in recent years. However, the impact of backlash on policy trajectories remains understudied and, more specifically, the relationship between policy backlash and policy failure remains ambiguous. This chapter examines the extent to which policy backlash leads to policy failure in climate change mitigation policy, and considers implications for future policymaking. We adapt McConnell's (2015) policy failure/success framework to assess six systematically sampled cases of policy backlash by evaluating their degree of policy failure. The analysis draws on primary data (25 in-depth expert interviews) and secondary data (media articles, policy documents, academic and grey literature). The findings demonstrate substantial variation in both the degree and forms of failure across cases, suggesting that backlash does not uniformly lead to policy failure. Moreover, in addition to detrimental effects of backlash, there can sometimes also be productive effects by stimulating policy adaptation to address policy deficiencies or reinforce a broader policy agenda. Overall, this suggests that adaptability is a key determinant for ensuring policy viability in situations of policy backlash.

5.1 INTRODUCTION

Policy backlash – such as from mass publics, elites, and organized groups – is a now major challenge in contemporary policymaking across many domains (Alter & Zürn, 2020; Patashnik, 2023), including civil rights (Glickman, 2020), migration (Claassen & McLaren, 2022), and climate policy (Patterson, 2023). Policy backlash involves "an abrupt and forceful negative reaction by a significant number of actors seeking to reverse a policy" (Patterson, 2023, p. 68), which can lead to a range of policy outcomes including policy reversal, weakening, and delay, but also potentially no change or even policy strengthening (Patashnik, 2023; Patterson, Logg-Scarvel, et al., 2026). Backlash is an important policymaking challenge because it calls into question the ability of policymakers to successfully design and implement robust action on contested public good policy issues. However, while policy backlash is often treated, explicitly or implicitly, as indicative of policy failure, the relationship between policy backlash and policy failure remains ambiguous. Elucidating this relationship is important for evaluating experiences of policy backlash, and understanding the potential effects of backlash from future policy action.

Backlash may reflect policy failure if it derails policymaking efforts and undermines the ability of policymakers to take further action in the short and longer term. For example, reactive demands from social groups and/or powerful elites to return to a pre-policy condition can reinforce the status quo regarding both substantive goals and social relations (Alter & Zürn, 2020, p. 566). Backlash may, therefore, hinder efforts to advance ambitious policy by not only leading to policy reversal/rollback, but also by undermining the authority and credibility of policy proponents, and even poisoning a policy agenda into the future (Patashnik, 2023; Patterson, 2023), not unlike major policy program failures which can "threaten the position of politicians and parties that sponsor [such] programs" (McConnell, 2010a, p. 357). Consequently, a policy problem may go unaddressed as future policy action becomes even more difficult.

Experience of backlash, or fear of it, may lead to a focus on policy design and implementation approaches to avoid backlash, such as moderating policy ambition, compensating policy losers or expanding supportive coalitions to overcome opposition (Anisimova & Patterson, 2024; Meckling & Nahm, 2022; Patashnik, 2019, 2023). Such strategies may certainly be warranted in some situations. However, viewing backlash only as a threat might also lead to unduly curtailed ambition, misdiagnosing the actual causes of policy difficulties, or further aggravating contestation. Backlash might sometimes also helpfully prompt adaptation in policy objectives, instrument choices, and settings, or even overall policy approaches (e.g., costs- vs incentives-based modes (Coleman et al., 2023) , mandatory vs voluntary instruments (Bretter & Schulz, 2025)) that strengthen policy durability by better aligning policy with societal conditions (Jordan & Moore, 2020; Patterson et al., 2025). Hence, there is a need to examine not only the effects of backlash on policy outcomes (Anisimova & Pat-

terson, 2025, p. 5) but also the conceptual links between backlash and policy failure (McConnell, 2010a).

The chapter therefore asks: when and to what extent does policy backlash lead to policy failure in climate change mitigation policy, and with what implications for policymaking? The aim is to unravel the relationship between policy backlash and policy failure to inform policy strategies in situations at risk of backlash, such as climate change policy. The focus on climate policy because it is a domain where backlash is increasingly observed against different types of policies (Anisimova & Patterson, 2024), including carbon pricing policies (Driscoll, 2023; Patterson et al., 2025; Raymond, 2020; Skocpol, 2013), regulatory policies (Yozwiak et al., 2021), and coal phase-out policies (Stutzmann, 2025), and is therefore likely to offer important insights. The chapter takes a political conception of policymaking and its interaction with society, where policy is likely to encounter some degree of contestation at all stages (agenda setting, design, adoption, implementation, and post-adoption) (Patashnik, 2008; Sabatier, 2007; Weible & Heikkila, 2017), which may play out in ways that are constructive or detrimental to policy success. This work adapts McConnell's (2015) policy failure/success framework to assess six systematically sampled cases of policy backlash in OECD countries between 2009-2022 by evaluating their degree of policy failure, drawing on a combination of primary data (25 structured in-depth expert interviews) and secondary data (media articles, policy documents, academic and grey literature). The findings reveal that the cases vary substantially in their degree and forms of failure, suggesting that backlash does not always lead to policy failure, thereby highlighting the need for a nuanced and empirically informed view of this relationship. The chapter also highlights that the capacity for policy to adapt is crucial in shaping policy outcomes in the face of backlash. Backlash may sometimes have productive effects by leading to policy adaptations that address deficiencies of a specific policy thus counterintuitively helping to reinforce a broader policy trajectory (Rosenbloom et al., 2019). Hence, policy may not fail completely when backlash occurs, and partial failure may even be acceptable on difficult contentious issues. The chapter therefore suggests that rather than aiming up-front for outright policy success (which is perhaps rarely attainable), ambitious policymaking should focus on avoiding complete failure and continuing to adapt policy if and when intense policy conflict occurs (Jordan & Moore, 2020; Leong & Howlett, 2022; Paterson et al., 2025).

5.2 THE RELATIONSHIP BETWEEN POLICY BACKLASH AND POLICY FAILURE

Policy failure involves a combination of unachieved policy goals and presence of policy contestation (McConnell, 2010a, 2010b, 2015). In this regard, backlash would likely indicate policy failure because it reflects intense policy contestation. Policy scholars examining policy success and failure often do not use the term backlash, but nonetheless consider similar issues

when discussing "great policy opposition" and/or "virtually absent policy support" (McConnell, 2010b, 2010a), policy conflict (Weible & Heikkila, 2017), protest and oppositional mobilization (Anisimova & Patterson, 2024), or contested legitimacy (Salamon, 2001; Wallner, 2008). However, this leaves the relations between policy backlash and failure ambiguous. The two terms are not synonymous because they focus on overlapping but distinct phenomena: policy backlash concerns reactions to a policy development from various actors, whereas policy failure concerns a wider range of ways in which policies may fall short.

5.2.1 Policy backlash

Policy backlash involves a volatile negative reaction against a policy from actors mobilizing abruptly through institutionalized and/or non-institutionalized means (Patashnik, 2019; Patterson, 2023). This may manifest through voting behavior (Stokes, 2016; Stutzmann, 2025), large scale mobilizations and protests (Anisimova & Patterson, 2024; Patashnik, 2023), hostile political and/or media campaigns (Crowley, 2021), or legal challenges (Stacey, 2021). Backlash can be seen as an "endogenous response to the attributes of public policies" where incentives for mobilization are "created by the evolving political context" (Patashnik, 2023, p. 5), or as a sociopolitical reaction to a mismatch between a policy action and its context when policy severely fails to accommodate the needs, desires, and beliefs of target actors (Patterson et al., 2025). Backlash may thus indicate a lack of political viability of a policy.

Backlash may be seen as an indicator of policy failure because it is politically disruptive and reflects severe dissatisfaction among target actors and/or wider audiences, and may lead to significant negative policy consequences (e.g., rollback, weakening) disrupting policy progress. Thereby, backlash may reflect "a belief that a policy is failing to show due respect to a constituency's values, preferences, or status within the society" (Patashnik, 2019, p. 48), or "a deeper dissatisfaction with the social conditions of mainstream society" (Alter & Zürn, 2020, p. 571) where policy agendas are being pursued by policymakers that reflect certain preferences not shared by others. On the other hand, if a policy did not face backlash, or did face it but survived, then this could indicate policy success regarding its durability and/or viability. Hence, backlash is also different from what is sometimes labelled policy fiascoes or blunders (Bovens & Hart, 2016) which refer largely to egregious failures by policymakers, because backlash involves unintended and often unpredictable reactions often stemming from inherent difficulties of the problem and complex and contingent dynamics involved in addressing it. Policy action is sometimes unavoidably "politically perilous" because it requires "imposing losses on powerful constituencies" (Patashnik, 2023, p. 16).

5.2.2 Policy success/failure

Policy failure occurs when "even if [policy] is successful in some minimal respects, if it does not fundamentally achieve the goals that proponents set out to achieve, and opposition is great and/or support is virtually non-existent." (McConnell, 2015, p. 230). Yet, evaluating policy failure is often complex and requires considering multiple dimensions and compo-

nents which might not all fail to the same extent (Bovens & Hart, 2016; McConnell, 2010b, 2010a, 2015). Even policies that largely fail may also involve "small and even quite modest successes" (McConnell, 2015, p. 231). This raises the question of whether failure in some ways due to backlash means failure overall, and how to assess this. Doing so requires considering how policy failure does or does not occur in situations of backlash, and conversely, whether there are also any indications of policy success (e.g., successful elements, partial durability, beneficial adaptations).

Scholarship on policy failure highlights challenges including selecting criteria to assess policy success/failure, variation in the relative degree of success/failure across different criteria and over time, variation in experiences/perceptions of policy success/failure for different actors or groups, and how evaluations of policy success/failure incorporate objective and subjective measures (Bovens & Hart, 2016; Dowding et al., 2025; Howlett, 2012; McConnell, 2010a, 2015). Because assessing policy success/failure is both "a matter of fact as well as of interpretation" (McConnell, 2010a, p. 346), scholars highlight the need to consider both objective indicators (e.g., cost-benefit analysis, technical performance) and subjective indicators (e.g., narratives, stories, perceptions of performance) (Bovens & Hart, 2016; Dowding et al., 2025; McConnell, 2015). Interpretive judgments are thus unavoidable in assessing policy success/failure (McConnell, 2010b), not least because actors may hold "contested views" on whether policy failure occurred (McConnell, 2015, p. 222) and because resulting narratives are "shaped in ongoing 'framing contests'" between policy proponents and opponents (Bovens & Hart, 2016, p. 654). Hence, assessing policy success/failure requires both systematic criteria as well as their interpretation.

5.2.3 Analytical framework

To examine the forms and extent of policy failure due to policy backlash we employ McConnell's (2010b, 2010a, 2015) framework of degrees of policy success and failure. This framework comprehensively synthesizes diverse ways in which policies may fail and their extent, recognizing objective and subjective aspects. It considers three dimensions[11]: process (including policymaking and legitimacy), program (including achieved objectives and outcomes, effective and efficient use of resources), and politics (including impacts on government popularity, electoral outcomes, and public opinion) (McConnell, 2010b, 2010a, 2015). All three dimensions are important because policy backlash might affect broader policy and political agendas alongside program consequences (Landwehr, 2020, p. 605; Patterson, 2023). Moreover, McConnell's framework focuses on understanding how policy interacts with its societal context, which aligns with studying policy backlash at the policy-society

[11] Bovens (2010) and Bovens & Hart (2016) argue that 'process' should be part of both 'program' and 'politics' dimensions (reflecting a policy proponent perspective), although we follow McConnell's (2010b, 2010a, 2015) approach because it reflects a policy-society perspective where process features (e.g., legitimacy) are not only about securing policy success for proponents but about how policy is received in society (also see: (Marsh & McConnel, 2010).

interface (Patterson et al., 2025). It thus allows for identifying how policy backlash may involve degrees of policy failure.

This chapter adapts McConnell's framework to strengthen its applicability for our study, while also changing as little as possible to retain alignment with wider work (Table 5.1). First, this chapter consolidates criteria that were either already largely captured by other, broader criteria or were too difficult to measure consistently. Specifically, the criteria on coalition-building (which is difficult to assess consistently, and largely reflected in the criterion on process support), target group benefits (due to varying interpretations of who constitutes the target group, and which is largely reflected in the criterion on policy outcomes), satisfaction of highly-valued policy priorities (which is somewhat abstract and hard to assess), and political benefits for government (which is largely reflected in the other political criteria such as electoral and reputational outcomes, and governability) are removed. Second, this chapter responds to the need to include temporality in policy assessment (Dowding et al., 2025; Landwehr, 2020, p. 605; Leong & Howlett, 2022; Luetjens et al., 2019) such as long-term durability under contestation (Jordan & Moore, 2023), by adding a criterion on stability of a policy trajectory over time in the political dimension. For example, policies that experience substantial calls for policy change12 shortly after adoption might reflect more fundamental design or implementation failures than those that persist for several years before the need for change arises. Third, re-labelling of the three points on the spectrum of policy failure in the original framework takes place (tolerable failure=low, conflicted failure=moderate, outright failure=high) to describe the labels more neutrally and ascribe numerical values to support case comparison.

[12] By 'policy change', this chapter refers to alteration of overarching policy goals, instruments, and/or settings (Hall, (1993).

Table 5.1. Adapted analytical framework for studying policy failure (based on McConnell 2010a,b; 2015).

No.	Criteria*	Description of failure**	Measures (with score 1-3)***
Process:			
1	Preserving goals and policy instruments.	Deviation from original goals and instruments.	[1] Low (policy goals and instruments preserved despite minor refinements). [2] Moderate (goals and instruments prove controversial and difficult to preserve; some revisions necessary). [3] High (failure to preserve desired policy goals and instruments; policy termination/complete suspension).
2	Securing legitimacy.	Presence of legitimacy challenges.	[1] Low (some challenges to legitimacy but of little or no lasting significance). [2] Moderate (difficult and contested issues of policy legitimacy; potential to taint policy in the long-term). [3] High (highly serious and potentially fatal damage to legitimacy; complete illegitimacy of policy process).
3	Attracting support for process.	Presence of opposition to the policy process.	[1] Low (opposition to process is low level and outweighed by support). [2] Moderate (opposition and support are somewhat balanced). [3] High (opposition to process is virtually universal and/or support is virtually non-existent).
Program:			
4	Implementation in line with objectives.	Objectives non-attainment.	[1] Low (largely achieved goals, minor failures). [2] Moderate (mixed results). [3] High (chronic failures despite minor progress; complete failure).
5	Achieving desired outcomes.	Outcomes non-attainment.	[1] Low (largely achieved outcomes, minor failures). [2] Moderate (mixed results). [3] High (chronic failures despite minor progress; complete failure).
6	Attracting support for program.	Opposition to program (its aims, values, means).	[1] Low (opposition to program is low level and outweighed by support). [2] Moderate (opposition and support are somewhat balanced). [3] High (opposition to program is virtually universal and/or support is virtually non-existent).
Politics:			
7	Enhancing electoral prospects/ reputation.	Policy as an electoral/ reputational liability.	[1] Low (favorable to electoral prospects and reputation enhancement, despite minor setbacks). [2] Moderate (support and opposition both impact electoral prospects and reputation in fairly equal measure). [3] High (despite small signs of benefit, policy proves an overall electoral and reputational liability).

Table 5.1. Adapted analytical framework for studying policy failure (based on McConnell 2010a,b; 2015). (*continued*)

No.	Criteria*	Description of failure**	Measures (with score 1-3)***
8	Easing the business of governing.	Incapacity to govern.	[1] Low (despite some problems in agenda management, capacity to govern is unperturbed). [2] Moderate (policy is controversial and takes more political time and resources to defend than expected). [3] High (policy failure is high and persistent such that it damages government's capacity to govern).
9	Promotion of government's desired trajectory.	Deviation from government's desired trajectory.	[1] Low (some refinements needed but broad trajectory unimpeded). [2] Moderate (direction of government broadly in line with goals, but policy prompts some rethinking). [3] High (overall trajectory of government in danger of being compromised).
10	Policy endurance.	Substantial calls for policy change.	[1] Low (policy faces large scale call for change 3-5 years after implementation, if ever). [2] Moderate (policy faces large scale call for change 1-3 years after implementation). [3] High (policy faces large scale call for change within the first year of being implemented).

*Original criteria from McConnell (2015), except for no. 10 which the authors added.

**Authors' own description.

***Adapted closely from McConnell (2015); authors' addition for no. 10.

5.3 METHODOLOGY

Within our focal domain of climate mitigation policy, we consider hard climate policies (e.g., taxation/pricing, regulation, phase-out). These types of policies are often considered crucial for advancing climate action but are most at risk of backlash due to imposition of economic and social costs (Jordan & Matt, 2014; Patterson, 2023). As Bovens & 't Hart note: "Much of government policy is not about conferring benefits and delivering services, but about restricting freedoms, administering pain and eliciting compliance. To make those types of policies politically popular is a big ask" (2016, pp. 656–657). Coercive policies may be perceived as causing infringements on individual liberty, creating a greater "threat for legitimacy" and consequently, negatively affecting policy support (Salamon, 2001, p. 1651), which is essential for policy success (McConnell, 2010a, 2015).

This chapter adopts a comparative approach involving a medium-n sample of six cases of policy backlash. This intermediate number of cases enables a broader comparative perspective than small-n analysis, helping to examine variation across policies and contexts, while at the same time, enabling greater qualitative depth and richness within each case than can be captured by large-n analysis which is important for applying the analytical framework. A medium-n sample also contributes to enriching literature on policy failure and climate policy currently represented by small- and large-n case studies. To do this, this chapter examines six policy packages that experienced backlash in Chapter 3, comprising: four carbon pricing policies (Australia, Canada, France, Mexico); one coal phase out policy (Germany) and one regulatory policy (USA). These cases were identified through systematic sampling of adopted hard climate policy instruments in two central climate policy sectors (i.e., general frameworks; energy and heat sector) within OECD member countries over the period 2009-2022. Closely interrelated individual policies with common goals are grouped into policy packages as they were often not readily distinguished by policy audiences during political debates. This provides a set of cases of policy backlash within a broader population of hard policies in OECD member countries, which also reflects some diversity in terms of jurisdictions and instruments. This enables empirical analysis of the relations between backlash and policy success/failure within the wider policy development contexts of each case.

13 Based on Climate Policy Database classification (www.climatepolicydatabase.org).

Table 5.2. Overview of selected cases of policy backlash in the climate policy domain.

No.	Policy case	Country and Year	Description	Policy instruments[13]	Status
1	Carbon pricing policy package, comprising several instruments (Clean Energy Act 2011; Carbon Pricing Mechanism 2012; Carbon Pollution Reduction Scheme (CPRS) - Emissions Trading Scheme 2012; Clean Energy Future Plan 2012)	Australia 2011-2012	Legal framework for pricing carbon emissions and promoting renewable energy investment	Carbon taxation/ pricing	Repealed
2	Carbon pricing policy package comprising several instruments (Federal Carbon Pricing Approach and Backstop System 2017; Greenhouse Gas Pollution Pricing Act 2018; Fuel charge 2019; Federal Greenhouse Gas Offset System 2020)	Canada 2017-2020	Policy introducing federal pricing in the provinces lacking equivalent systems and the offset system	Carbon taxation/ pricing	Modified, active
3	Coal Exit Law *(Kohleausstiegsgesetz)*	Germany 2020	Legally binding framework to phase out coal-fired power generation by 2038	Phase-out	Active
4	Carbon Charge Component *(Contribution Climat-Énergie)*	France 2014	Part of the domestic energy tax framework to price carbon emissions from fossil fuel use outside the EU ETS	Carbon taxation/ pricing	Modified, active
5	Carbon tax policy *(Impuesto al Carbono)*	Mexico 2014	Part of comprehensive fiscal and environmental reform to curb GHG emissions and promote cleaner energy	Carbon taxation/ pricing	Modified, active
6	Affordable Clean Energy Rule	USA 2019	Delegation to the states the regulation of GHG from existing coal-fired power plants, loosening of the standards	Regulatory standards	Repealed

Each policy case is assessed against the analytical framework (Table 5.1). We score each criterion (1-3 points) by synthesizing primary data (i.e., structured interviews with policymakers and policy experts) and secondary data (i.e., policy documents, media articles, grey literature, academic papers). The interviews were conducted between June 2023 and June 2024 (n=25; average interview length 45–60 minutes) (Appendix 5.1), identifying interviewees through publicly available sources focusing on their expertise in policy packages, supplemented by snowball sampling during the interview stage. Each case involved 3–6 interviewees, which varied depending on the degree to which participants covered relevant aspects of a policy package, and if major uncertainties remained, we recruited additional participants. The secondary sources were purposively sampled through open-ended searches and used this data to complement and, where possible, triangulate with interview data to interpretatively assess the criteria for each case.

The scores were summed across the ten criteria for each case (Appendix 5.2) to provide an overall policy failure score, categorized according to McConnell's (2015, p. 237) policy failure spectrum: Tolerable failure/Resilient success (i.e., policy goals are not entirely impeded and opposition remains relatively small; 10-16 points); Conflicted failure/Conflicted success (i.e., elements of both success and failure are both present such as significant policy opposition and advocacy/defense, insufficient to form a "fatal blow"; 17-23 points); and (Outright) failure/Marginal success (i.e., policy does not achieve its goals and experiences strong opposition and/or lack of support; 24-30 points). The numerical ranges for each category are equally spaced between the minimum and maximum points on the spectrum to provide a transparent and comparable scale. The scores were also disaggregated for the three dimensions to examine patterns of failure in more detail. For example, Marsh and McConnell (2010, p. 586) suggest that although the dimensions may partly overlap, they could also reflect distinct "faces" where "success in one area does not necessarily accord with success in another". Hence, there could be different policy success/failure patterns.

5.4 RESULTS

The results are presented in two steps: first, the overall comparative assessment of policy failure disaggregated across the three dimensions; and second, the findings and assessment per case.

5.4.1 Overall results

The overall results of the case scoring are shown in Figure 5.1, the disaggregated scores for the three policy failure dimensions are shown in Figure 5.2, and a more detailed scoring summary table is provided in Appendix 5.2. Consistent with expectations, the chapter finds variation in the degree of policy success/failure. Two cases lie in the (Outright) failure/Marginal success category: Australia's carbon pricing policy which is nearest to the failure end of the spectrum (high in all three failure dimensions), and the U.S. Affordable Clean Energy Rule which has a slightly lower total score (with a slightly better score on the program dimension). Three cases lie in the intermediate Conflicted failure/Conflicted success category: France's carbon pricing policy which was close to the outright failure category (with slightly lower scores across the three failure dimensions), and both Canada's and Mexico's carbon tax policies which were somewhat more successful (with moderate scores across all three dimensions). One case lies in the Tolerable failure/Resilient success category: Germany's coal phase-out which was on the edge of the conflicted failure category (with lower scores on process and program dimensions).

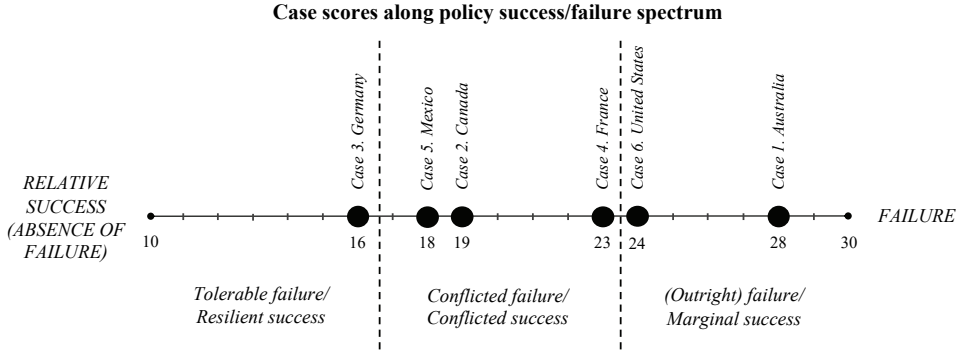


Figure 5.1. Case scores assessed showing variation in degree of policy failure.

Several cases lie near the thresholds of the overall policy failure categories, which means that those cases relatively closer together (e.g., cases 3, 5, 2; and cases 4 and 6, respectively) may be more similar than those at different ends within a single category. Nonetheless, the categories remain useful by allowing systematic comparison and reflect the nuance of the multi-criteria approach showing the value of moving beyond "crude, binary rhetoric of success and failure" (McConnell, 2010a, p. 346). At the same time, there are important differences between cases, even those relatively close in outcome. Germany's phase-out differs from cases in the "Conflicted failure/Conflicted success" category due to the uniquely pro-climate orientation of the backlash it generated. France's carbon tax differs from the "(Outright) Failure/Marginal success" cases because it remained in force. Hence, the outcome categories do prove meaningful.

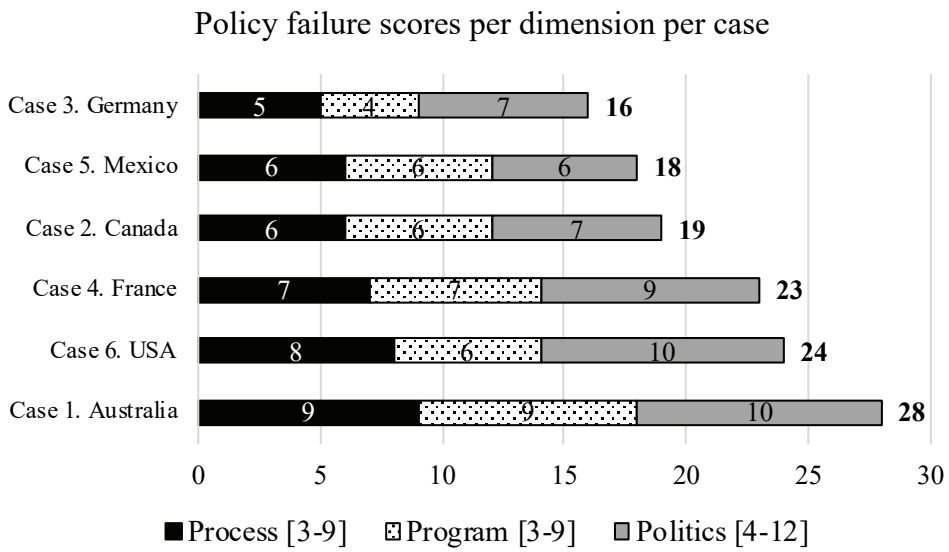


Figure 5.2. Disaggregation of policy failure dimensions for each case (NB: legend indicates possible score range for each dimension in square brackets).

When disaggregating the three dimensions comprising the overall score, we observe that failure tends to occur across the three dimensions simultaneously, in contrast with the idea that these dimensions could be decoupled (e.g., Marsh and McConnell, 2010). Hence, the dimensions may be relatively interdependent in practice, despite conceptually reflecting different clusters of indicators. This interdependence may be related to legitimacy (input, throughput, and output): while Criterion 2 of the analytical framework speaks to legitimacy directly, others are also indirectly related to legitimacy, such as Criteria 3 (support for policy process), 6 (support for policy program), 7 (electoral and reputational outcomes), 8 (governability), and 10 (calls for policy change). Both policy backlash literature and studies on policy success/failure highlight the importance of legitimacy (Patterson, 2023; Wallner, 2008). Legitimacy contributes to positive policy outcomes including policy acceptance and durability (FitzGerald et al., 2019; Hanberger, 2003; Park et al., 2015; Patterson, 2023). On the other hand, lack of legitimacy can contribute to strong negative reactions against policy (Salamon, 2001), including backlash (Patterson, 2023). Across cases, the program dimension is least consistent with overall failure. For example, case 6 (policy failure) and cases 5 and 2 (low-failure) have a similar score for the program dimension. This may be because program-related failings (e.g., difficulty in achieving policy goals and outcomes) are inherent to policymaking rather than only indicative of policy failure.

5.4.2 Case Results

5.4.2.1 Case 1: Australia's carbon pricing policy package (2011-2012)

Australia's carbon pricing policy package (2011-2012) was a relatively ambitious attempt to reduce greenhouse gas emissions and support a low-carbon transition. This package emerged at a time of growing public and political recognition of climate change, rising domestic emissions (especially from coal-fired electricity generation), and increasing international pressure for developed economies to reduce greenhouse gas emissions (CER, 2012, p. 5). The Clean Energy Act (2011) established a legal framework for pricing carbon emissions and promoting renewable energy investment. Central to this was the Carbon Pricing Mechanism (CPM) (2012), which introduced a fixed carbon price which was intended to evolve into a flexible Emissions Trading Scheme (Grudnoff, 2020). The CPM was designed in the wake of a previously failed attempt to introduce a Carbon Pollution Reduction Scheme (CPRS) in 2008-09, which was also highly contested. The Clean Energy policy package was legislated in 2011 by a minority Labor government with support from the Greens and independents but was repealed in 2014 by an incoming conservative government after an election campaign heavily shaped by ongoing criticism of the carbon pricing scheme by conservative opponents (Int3_AUS).

Backlash arose through strong opposition from conservative politicians in the Liberal-National party coalition, for whom carbon pricing became a central ongoing criticism. They portrayed the policy relentlessly as a punitive "carbon tax" that would raise electricity prices, increase household living costs, and undermine economic competitiveness. Right-leaning media (including newspapers and prominent individuals) as well as industry campaigns amplified this message, which came to resonate among the wider public in a context already sensitive to cost-of-living pressures and somewhat wary about climate action (Int2_AUS). As a result, conservative opponents succeeded in mobilizing publics through fomenting significant discontent over the carbon pricing scheme and sporadic but high-profile public protests sometimes involving conservative politicians making inflammatory statements. The policy package became contested on multiple grounds including legitimacy challenges (e.g., it was perceived as a broken electoral promise of 'no carbon tax' (Leslie, 2011), deeper ideological division on climate policy issues, and political leadership instability (Crowley, 2017)).

This case is assessed as an "(Outright) Failure/Marginal Success" (28 points). It receives a high failure score on every dimension (i.e., process, program, politics). The only exception concerns the overall climate policy trajectory (Criterion 9) which this policy package strove to uphold. Interviewees suggested that climate ambition was put on hold largely due to the political trauma around this policy package (Int1_AUS; Int2_AUS). Regarding process, goals and instruments were not revised or modified and were eventually repealed. Regarding program, a relatively substantial 8.2% emissions reduction from electricity generation and 38% increase in renewables occurred between 2012-2014 (O'Gorman & Jotzo, 2014) with

minimal macroeconomic impact (Grudnoff, 2020; O'Gorman & Jotzo, 2014). However, policy instability limited progress and the primary objective to introduce a long-term carbon pricing mechanism failed. Politically, the intense contestation (including fierce political rivalry, partisan media framing, and protests) created governability challenges, and led to the downfall of the Labor government who introduced the policy package (Copland, 2020). Significant policy failure thus occurred across all three dimensions.

5.4.2.2 Case 2: Canada's carbon pricing policy package (2017-2020)14

The 2018 Greenhouse Gas Pollution Pricing Act (GGPPA) introduced by the Liberal government established a national carbon pricing scheme centering on two key components: a consumer fuel charge and an industry Output-Based Pricing System (OBPS) for high-emitters. The GGPPA emerged from a prior 2016 Pan-Canadian Framework setting out principles for a national approach allowing provincial autonomy with a national backstop to ensure consistency. Under the GGPPA, provinces can opt-in to the federal scheme or implement their own equally stringent policy (ECCC, 2025). The federal scheme also involves consumer rebates and revenue recycling and an offset and credit scheme for industry which have been introduced and/or adjusted over time to try to build support among target groups (ICAP, 2024). Most provinces have gradually come to adopt the federal scheme (ECCC, 2025). While emissions have stabilized over time without hindering economic growth, Canada remains off track for its 2030 emissions reduction targets and 2050 climate neutrality goals (Linden-Fraser et al., 2026).

The policy package faced backlash from conservative politicians at the provincial and federal levels, which also generated enduring public discontent. Despite initial alignment under the pan-Canadian framework, several provincial Premiers (including some newly elected) soon began to sharply criticize federal carbon pricing, portraying it as an intrusion on provincial powers and a threat to economic competitiveness (Harrison, 2023; Winter, 2020), and even brought separate legal challenges which culminated in a combined Supreme Court challenge in 2019. Although the policy was upheld by the Supreme Court in 2021, the intense policy conflict exposed enduring tensions between federal and provincial authorities (Hughes & Landry, 2024; Stacey, 2021). Opposition parties and business lobbies promoted the narrative of a "costly carbon tax" (Int2_CAN), and public mobilization occurred through the Yellow Vest Canada movement in 2018-2019 (Tewksbury, 2021). Legal validation by the Supreme Court bolstered formal authority, and adaptation of policy instruments helped to address socio-economic concerns. Nonetheless, the fuel charge component continued to be criticized and was eventually suspended by the Liberals themselves to neutralize it as a political issue in 2025 (Pepin-Proulx, 2025).

[14] Canada's carbon pricing policy package including Federal Carbon Pricing Approach and Backstop System (2017), Greenhouse Gas Pollution Pricing Act (2018), Fuel charge (2019), Federal Greenhouse Gas Offset System (2020).

This case is assessed as a "Conflicted Success/ Conflicted Failure" (19 points). Regarding process, policy adjustments over time (e.g., enhancing the visibility of consumer rebates) and even the ongoing expression and resolution of conflict (e.g., through court challenges and multiple election cycles) helped to validate and sustain the policy for a long time despite criticism (Int1_CAN; Int3_CAN). Regarding program, the policy package has been on track to deliver measurable environmental outcomes via reduction of around 80 Mt of carbon emissions by 2030 (Thurton, 2024). Nonetheless, and despite consumer rebates and revenue recycling (Mildenberger et al., 2022), it still encountered extended negative public perceptions. This is not only due to ongoing criticism by opponents, but also because the framework's complexity and uneven impacts raised transparency and fairness concerns, affecting public trust in the policy process (Int5_CAN). Regarding politics, while the federal government has maintained administrative and legislative control, the policy package remained polarizing leading up to the 2025 national election. Although the consumer charge was suspended, the OBPS remains in place, yet the prospects for carbon pricing are now more uncertain (Carbon Direct, 2025; Jouan, 2024).

5.4.2.3 Case 3: Germany's Coal Exit Law (2020)

Germany's 2020 Coal Exit Law formalized a commitment to phase out coal-fired power generation by 2038. This law was developed from the recommendations of the Commission on Growth, Structural Change and Employment (Coal Commission) involving actors from industry, labor unions, environmental NGOs, academia, and local communities' representatives to reach consensus on coal phase-out. However, the final legislation drafted by the SPD and CDU/CSU governing coalition diverged from the Commission's recommendations by delaying shutdown of some lignite plants and providing higher, less-conditional compensation to operators (Hauenstein et al., 2023; Wehrmann, 2021). This divergence from the Commission's recommendations was widely perceived as an outcome of industry lobbying, raising concerns about process legitimacy (Int1_GER) and procedural fairness (Radtke & Beer, 2024), while critics also questioned distributional fairness and output legitimacy in light of extensive compensation schemes and exemptions in favor of coal producers (Haas et al., 2022, pp. 391–393) as well as uncertainties surrounding regional financial and structural transition support (Oei et al., 2020; Radtke & David, 2024).

Backlash emerged from two fronts: first, coal and energy sector labor unions mobilized against plans for a rapid exit from lignite coal (Kleinheisterkamp-González, 2025), a stance supported by regional branches of CDU/CSU as well as the far-right AfD party; second, civil society groups, environmental NGOs, and climate change experts opposed the policy due to its insufficient climate ambition (Gürtler et al., 2021, pp. 7–9) and slow exit timeline (Rinscheid & Wüstenhagen, 2019), also accusing the Greens Party of complacency (Thurau, 2023). Proactive efforts by the government to accommodate the double-sided critique included: (i) measures to support structural regional transition (Int2_GER), focusing not only on coal phase-out but also future economic pathways, jobs, and regional investment (Bang et

al., 2022, pp. 1010–1012); and (ii) a series of reviews scheduled in 2026, 2029, 2032 to build flexibility into the policy (i.e., to allow the exit date to be moved closer to 2035 if possible) (Agora, 2019). As a result, the Coal Exit Law survived and remains central to Germany's climate change policy approach (Int1_GER; Int3_GER).

This case is assessed as a 'Resilient Success/Tolerable Failure' (16 points). Regarding process, failures include legitimacy challenges (both throughput and output) as well as concerns over procedural fairness given the involvement of industry actors which reduced policy support among publics (Haas et al., 2022). However, the Coal Commission itself, with the intent to make the policymaking process more inclusive, gave some credibility to the policy process (Hauenstein et al., 2023). Regarding program, the policy produced observable and meaningful outcomes: a reduction in coal share, institutional mechanisms for coal phase-out, and financial frameworks for transition (Bang et al., 2022). However, several objectives remain unmet or only partially met: the exit timeline is slow relative to climate ambition, the most carbon-intensive coal type (lignite) still dominates in coal-fired energy production, and regional structural transformation remains incomplete (Radtke & David, 2024). Regarding politics, while the law itself continues to stand and the government retains capacity to implement it, the political context suggests that the law has added electoral risk — especially in coal-dependent regions where voters may feel the transition is unfair or too slow (e.g., fostering far-right support) (Stutzmann, 2025). There have also been reputational costs, insofar as the government is portrayed as weak on climate ambition (Int3_GER). Overall, despite intense contestation and shortcomings, the policy remains crucial to Germany's climate transition strategy (Int1_GER; Int3_GER), supported by ongoing adjustments in its implementation (Agora, 2025) and regional policy developments (Bundesregierung, 2022a).

5.4.2.4 Case 4: France's Carbon Charge Component (2014)

France's Carbon Charge Component (Contribution Climat-Énergie, CCE) was introduced in 2014 as part of the domestic energy tax framework to price carbon emissions from fossil fuel use outside the EU Emissions Trading System (Rogissart et al., 2018). The CCE was embedded within existing excise taxes on fuels and progressively increased over time (from €7/tCO_2 in 2014 to over €44 by 2018) aiming to incentivize energy efficiency and low-carbon alternatives (Gouvernement, 2025). The CCE rate was frozen in the aftermath of the Yellow Vests protests in 2018-2019. Although the CCE became a stable revenue source and institutionalized a national carbon price, its social unacceptability created a "carbon tax taboo" in French politics, reshaping climate policy toward less contentious, incentive-based approaches (Schubert, 2019). Nonetheless, the policy is still in force alongside the EU ETS (SDES, 2025).

Backlash occurred through the massive Yellow Vests protests in 2018-2019. Although initially uncontroversial, the CCE later faced severe criticism and legitimacy challenges including weak public consultation (input legitimacy), perceived unfair decision-making

(throughput legitimacy), and limited environmental effectiveness (output legitimacy) (Driscoll, 2023; Jetten et al., 2020). Annual increases in the carbon tax and rising fuel prices between 2017 and 2018 generated growing public discontent, culminating in the Yellow Vest protests which denounced the tax as socially regressive and fiscally motivated rather than environmentally driven (Int6_FRA). The crisis exposed deep tensions between technocratic policymaking and distributive justice concerns (Douenne & Fabre, 2020; Martin & Islar, 2021), paralyzing the country and further eroding already-low public trust (Cautrès, 2019). This forced the government to freeze the tax at €44.6/tCO_2 and introduce compensatory measures, among other responses, marking a major deviation from the planned price trajectory (OECD, 2024).

This case is assessed as a "Conflicted Success/ Conflicted Failure" (23 points). Regarding process, it scores particularly poorly on the issues pertaining to policy legitimacy. The carbon tax became "a straw that broke the camel's back" (Int1_FRA; Int3_FRA; Int4_FRA) as the policy revealed deep-seated inequality and criticism of elites generating nation-wide social upheaval (Fourquet & Manternach, 2018). Regarding program, CCE environmental outcomes were limited, as low carbon prices and exemptions constrained emission reductions. Regarding politics, the policy became a political and reputational liability leading to reduced policy stringency. Nevertheless, the policy also achieved institutional and fiscal objectives by embedding a national carbon price and producing stable revenues. As of 2025, it covers roughly 41% of France's emissions, focusing on transportation, residential, services, and industry sectors not covered by the EU ETS (SDES, 2025). Overall, the government's corrective course (e.g., the rate freeze, additional compensation, initiation of the Citizens' Convention for Climate) helped to rescue a seemingly failing policy enabling it to persist.

5.4.2.5 Case 5: Mexico's carbon tax policy (2014)

Mexico introduced its Carbon Tax (Impuesto al Carbono) in 2014 as part of comprehensive fiscal and environmental reform aimed at reducing greenhouse gas emissions and promoting cleaner energy as well as raising general revenue for the state budget. Embedded within a broader fiscal reform, Mexico's carbon tax initially attracted limited public attention, shielding it from partisan contestation and major policy process challenges (Int1_MEX). The tax applied to fossil fuels covering roughly 40% of national greenhouse gas emissions (CAT, 2022). Designed as a modest levy, it was capped at about US$3.5 per tCO_2e, (Garcia et al., 2021) significantly lower than international benchmarks, reflecting concerns about competitiveness and energy affordability. With the low-price level and limited scope (i.e., natural gas exemptions), it embodied a fiscal measure rather than a strong climate instrument (Pérez & Vence, 2021). Revenues were absorbed into the general budget rather than earmarked for climate action (Belausteguigoitia et al., 2021, p. 143), undermining transparency and output legitimacy. Industry lobbying during policy design led to diluted coverage (Belausteguigoitia et al., 2021, pp. 142–145), and uneven rates across fuels raised public concerns about fairness and environmental integrity (Lafont et al., 2020).

Backlash occurred in early 2017 in response to a scheduled tax increase which coincided with a spike in the world fossil fuel prices. Public protests arose criticising the policy as unfair and criticising government mismanagement of the fuel price rises contributing to economic insecurity and dissatisfaction with elite-driven policymaking (Grunstein, 2017; Machaca, 2017; Renner, 2018). A wave of protests spread across the country in multiple forms: road blockades, gas station occupations, demonstrations, strikes, filing official complaints, among others, as well as vandalism on businesses and disobedience against police and law enforcement agents (Gutiérrez, 2020). The policy was perceived by people as part of a neoliberal project violating Mexico's national interests (given involvement of the World Bank and IMF in promoting the reform) and jeopardizing national welfare (given a national cultural attachment to the fossil fuel industry) (Garcia et al., 2021; Lafont et al., 2020) Industry actors and business groups opposed the policy, and societal groups and academics criticized its inequitable design (e.g., zero rates for natural gas mainly benefited large-scale industrial users who rely heavily on natural gas, while households and smaller entities using other fuels bore the brunt of price increases, particularly through indirect impacts like electricity cost) (Int2_MEX; Int1_MEX). To address criticism, the government implemented measures to curb rising prices of essential goods and prevent reductions in social programs (Ahrens, 2017), and ultimately abandoned the planned tax increase entirely (Grunstein, 2017).

This case is assessed as a "Conflicted Success/ Conflicted Failure" (18 points). Regarding process, limitations included an ineffective tax rate as a key policy instrument and lack of inclusive policymaking. Regarding program, while this policy symbolized Mexico's early commitment to carbon pricing, it reflected "technocratic stability without climate capacity" (Int2_MEX) through a cautious, politically feasible but weak step toward a future market-based emissions framework (Int3_MEX; Int4_MEX). Regarding politics, its environmental impact was modest due to the low price, exemptions, and lack of coordination with broader climate mechanisms (Barragán-Beaud et al., 2018; Orozco, 2018). However, some aspects were successful: first, the tax generated fiscal revenue, and second, it established a much-needed carbon-pricing signal (Averchenkova & Guzman, 2018). Another positive outcome was that several states followed suit by setting up a state-level carbon tax (Miguel et al., 2025, pp. 33–35).

5.4.2.6 Case 6: United States' Affordable Clean Energy regulation (2019)

The Affordable Clean Energy (ACE) Rule, introduced by the Trump administration in 2019, replaced the Obama-era Clean Power Plan (CPP) as the federal framework for regulating greenhouse gas emissions from existing coal-fired power plants (EPA, 2019). The ACE Rule shifted authority to the states, allowing them to set plant-specific efficiency improvement standards rather than establishing national emissions targets. It emphasized "inside the fence line" measures (e.g., heat-rate improvements) (Int1_USA; Int3_USA) over broader systemic changes like fuel switching or renewable integration. In 2021, the D.C. Circuit Court vacated the ACE Rule, and in 2022, the U.S. Supreme Court further limited EPA's

authority to impose broad power-sector decarbonization mandates (NYU, 2021). In April 2024, the EPA formally repealed ACE, replacing it with stronger greenhouse gas standards that included carbon capture and sequestration requirements (EPA, 2025).

Backlash arose from environmental groups and scientific experts who criticized ACE's limited emissions impact and legal foundation, arguing that it failed to meet climate and public health goals (Keyes et al., 2019; McCormick, 2019; NYT, 2018). Courts, policymakers, and stakeholders debated its legality and effectiveness, expressing concerns over the regulatory uncertainty prompted by the radical change of the climate policy trajectory (Burgess et al., 2019; Klass, 2021). At the same time, policy proponents praised the fact that the rule emphasized state flexibility and deregulation, aligning with a pro-jobs, pro-states' rights narrative while weakening federal oversight of emissions (Yozwiak et al., 2021). The rule delivered mixed results: while ACE temporarily offered regulatory empowerment to the states and industry relief (although not fully implemented (Gross, 2019, pp. 9–11)), it weakened national climate policy by constraining the EPA's capacity to drive decarbonization (Keyes et al., 2019).

This case is assessed as an "(Outright) Failure/Marginal Success" (24 points). Regarding process, the ACE Rule represented a short-lived 180-degree turn in climate agenda seemingly flawed with legitimacy challenges (Int2_USA). Process legitimacy was questioned by policy opponents in the wake of discontent over Trump's popular minority election (and consequently, the policies of his administration). Additionally, policy opponents called for greater accountability and climate action including through legal challenges. Regarding program, decentralization and relaxation of climate rules received strong support from conservatives and industry. However, the flexibility offered to states did not yield the expected outcomes in improving operational efficiencies due to the limited policy lifespan, and anticipated support for the coal industry was undermined by market dynamics (i.e., declining renewables and natural gas costs which further undermined the coal-supportive rationale (Klass, 2021, pp. 245–246). Regarding politics, ACE did not provoke a breakdown of governance or a collapse of executive authority, but it interrupted and weakened the federal climate policy trajectory during 2019–2021 (CAT, 2025; EPA, 2025).

5.5 DISCUSSION

The findings reveal variation in the degree of policy failure across the six cases of policy backlash, involving heterogeneity across indicators as well as variation in the overall degree of policy failure. This challenges the general assumption in debates on policy backlash that backlash represents policy failure, or even that backlash is only a negative outcome. Although some cases show relatively unequivocal failure, others are more mixed, suggesting a need to avoid binary narratives of success/failure concerning policy backlash. This is in line with the

suggestion by McConnell that "bundles of outcomes" can lead to "shades in between" success and failure (2010a, pp. 345–346). Even some symptoms of policy failure such as intense public contestation (Howlett, 2012) did not always lead to outright policy failure in our cases. For instance, although large protests paralyzed an entire country for several months in France (case 3), the overall policy was not an outright failure when considering the comprehensive framework criteria because the policy continues delivering on its objectives (i.e., covering 41% of France's emissions specifically focusing on sectors not covered by the EU ETS). At the same time, policies that did score as outright failure (cases 1 and 6) involved repealed policies (i.e., Australia's carbon pricing policy package and the U.S. ACE Rule). This suggests that policy viability (i.e., continuing to deliver on policy goals) systematically correlates with multiple policy success/failure assessment criteria.

Our findings suggest that the extent to which a policy adapts in response to policy backlash impacts the degree of overall policy failure. Policy adaptation can help to absorb criticism and thereby weather the storm of backlash (Glachant, 2001; Pahle et al., 2021; Patashnik, 2008). Policy adaptation could include slowing or freezing the rate of carbon price increases when the context suggests that a higher rate cannot be societally accommodated (e.g., as in Mexico and France), reprioritizing policy instruments (e.g., expanded role of offsets and rebates in the Canada's multi-layered carbon pricing framework), and accelerating or decelerating policy timelines (e.g., shortening the coal phase-out timeframe from 2038 to 2030 for the North Rhine-Westphalia region in Germany (Bundesregierung, 2022a) and keeping open the possibility to accelerate phase-out nationally (Hauenstein et al., 2022)). This calls into question the idea that "the simplest and perhaps best available measure of success or failure is whether support for the policy is durable" (2019, p. 8). What might matter most is not the durability of policy support per se, but the capacity to adapt a policy when needed to keep on securing support.

Furthermore, our findings suggest that stimulating policy adaptation could sometimes be a productive effect of policy backlash (e.g., cases 3-5). Indeed, backlash might invoke policy changes that enhance policy sustainability (Patashnik, 2023, p. 176) through adapting policy to a changing context and increasing the ability to deliver on its objectives. Following Daugbjerg and Kay (2020), this represents a pathway to policy endurance through backlash conventionally understood as negative feedback that "threatens to destabilize a policy". Such adaptation could include re-calibration of goals and instruments15 (e.g., as in Canada's, France's, Mexico's carbon pricing policies), and strategic adjustment of a policy trajectory16 (e.g., return to pro-climate policy course after repeal of the U.S. ACE Rule). More generally, in all cases policy backlash generated public involvement in policymaking via contestation,

15 This speaks to the "double loop" logic of policy learning (Argyris & Schön, 1978; Dunlop, 2017, p. 5) suggesting that it implies not only the policy tool modification ("single loop learning") but also the alteration of objectives in policy design.

16 The "strategic adjustment" here speaks to a policy paradigm shift where policy experimentation broadly and policy failure specifically play a key role (Hall, 1993, p. 280).

in ways that were not previously present. This could suggest an emancipatory function of backlash asserting overlooked political views and interests (Patterson, Logg-Scarvel, et al., 2026, pp. 27–28) or even "democratic renewal of the procedural consensus" (Landwehr, 2020, p. 598), possibly leading to redefinition of the status quo (Kriesi, 2020). Similarly, Alter and Zürn (2020) argue that "institutional reshaping" features as a frequent companion and possible outcome of backlash politics.

This chapter therefore posits that policy backlash should be seen as holding the potential for both detrimental and productive effects on policymaking (Figure 5.3). Backlash is not uniformly a mode of policy failure, "but can also generate positive or transformative outcomes" (Landau, 2020). While policy backlash is indeed likely to have substantial detrimental effects, current literature tends to suggest that when such effects are not wholly detrimental, this is because either backlash was weak or because it was offset by simultaneous support (Patashnik, 2023, p. 176).

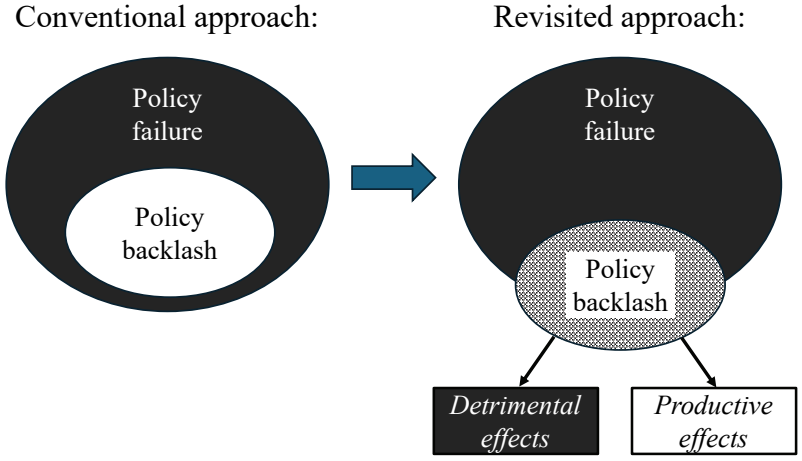


Figure 5.3. Conceptual repositioning of policy backlash as not simply reflective of policy failure, but as a more complex outcome which may have both detrimental and productive policy effects.

Distinguishing between detrimental and productive effects of backlash requires assessing not only whether a policy is able to deliver on its original goals, but also whether backlash leads to policy adaptation, which could span settings, instruments, and goals (Howlett & Cashore, 2009). This helps to move beyond thinking about the effects of backlash only in terms of policy outputs (e.g., whether or not the policy is repealed, weakened, or delayed), to instead consider the effects of backlash on a policy more comprehensively. A policy may be: (i) resilient (i.e., withstands contestation and continues delivering on its objectives, such as Germany's coal phase-out policy); (ii) adaptive (i.e., able to be modified to deliver on its objectives, such as Canada's carbon pricing policy package); (iii) weakened (i.e., undergoes change that diminishes its ability to deliver on its objectives, such as France's and Mexico's

carbon pricing policies); or (iv) failed (i.e., withdrawn, reversed, or abandoned, such as the United States' ACE Rule and Australia's carbon pricing policy package). Thus, genuine policy failure occurs when not only policy outputs are undermined but also when policy adaptation is lacking. This means that adaptiveness can moderate policy failure, offering the potential for positive responses to policy backlash to stabilize, or at least salvage, a policy. In other words, the response to backlash may matter as much as the backlash itself in determining policy failure.

5.6 CONCLUSION

To conclude, backlash should not be equated with policy failure, as it is a complex phenomenon that deserves a more nuanced interpretation. If backlash is automatically interpreted as failure, policymakers may become overly cautious or reluctant to adopt strong climate policies, reducing the scope and ambition necessary to achieve meaningful emissions reductions (Anisimova & Patterson, 2024). Backlash should be considered less as a uniform threat and more as a stormy litmus test that could end up derailing a policy agenda but might also end up strengthening it through adaptive responses to headwinds. The findings suggest that, instead of seeking ever more refined instruments or attempting to avoid imposing costs altogether, a valuable strategy may be to design policy as thoughtfully as possible while remaining prepared to adapt in response to unfolding developments – an approach that may be at least as important as initial design quality (Pahle et al., 2021). This is particularly important given the inherent uncertainty of political dynamics: backlash can arise unexpectedly, and in other cases fail to materialize when it might reasonably be anticipated (Patterson et al., 2025).

Policymakers should therefore aim for 'good enough' policy rather than perfection, recognizing that what counts as 'optimal' will be continually reshaped through processes of adaptation when even the best-laid plans encounter contestation. In this sense, contestation should serve as a stimulus for further action rather than a signal of policy failure; indeed, in some circumstances, tolerable failure may represent the best achievable outcome, with the goal being to avoid outright failure and move from conflicted success/conflicted failure toward a more stable, tolerable equilibrium in the face of deeply divided preferences, interests, and values. Differentiating between possible backlash outcomes, this chapter makes contribution to the nascent literature on the effects of policy backlash. Future research could further situate policy backlash consequences in wider policy theory by identifying the mechanisms through which backlash reshapes political priorities (e.g., preserving continuity of a broader policy agenda despite occasional setbacks) and influences the behavior of policy actors (e.g., making them accept short-term losses for long(er)-term gains). Additionally, it would be worthwhile to explore how policymakers should respond in practice to anticipated backlash risks both before policy is adopted (e.g., designing policies with adaptive capacity) and after

it has been enacted (e.g., making specific policy adaptations in response to backlash and wider policy-related contextual developments).

6

Chapter VI

Climate Policymaking in Times of Contention: Experts' Insights into Policy Viability[17]

[17] This chapter is ready for submission as an academic article.

ABSTRACT

Policy contention driven by mass publics remains an empirical reality of hard climate policymaking. Developing viable climate policies therefore requires a better understanding of conditions for contention, as well as consideration of policy action points for successful policymaking accounting for possible backlash. While a substantial body of academic research offers helpful theoretical insights into climate policy contention, the study of practice-driven policy experts' perspectives (i.e., insights from the field) is missing. Hence, there is a need to examine policy experts' perspectives on implementing hard climate policies prone to contention and on policymaking choices for enhancing policy viability in the face of (potential) contention. This study uses a qualitative, interpretive research design based on structured interviews with climate policy experts (n=62 across 16 OECD jurisdictions). The interpretive thematic analysis distinguishing between "problematized conditions of contention" (i.e., underlying problems or tensions conditioning contention) and "policy action points" (i.e., a suggested direction for policy action) suggests that despite varying public responses to policies, policy experts' interpretations of problematized conditions tend to converge providing a basis for possible ways to enhance policy viability. The chapter contributes to a more nuanced understanding of specific policy problems conditioning contention and offers practical insights into viability of climate policies.

6.1 INTRODUCTION

Climate policy has entered a phase in which the legitimacy of policymaking can no longer be taken for granted. As Paterson and colleagues argue, climate politics has become "a highly contested, multidimensional, transformational project" governed simultaneously by "logics of governance and logics of political contestation" (Paterson et al., 2026, pp. 59–60, 64). The implication for policymakers might be uncomfortable: regulatory ambition that is technically sound and politically authorized at adoption can still fail in implementation if it cannot withstand the contestation it provokes. Recognizing this, scholars increasingly call for a more "adaptive, improvisational, experimental approach" built on "learning by doing" (2026, p. 67). This call echoes longer-standing arguments about lesson-drawing (Rose, 1991) or policy learning (May, 1992) loosely defined as "a deliberate attempt to adjust the goals or techniques of policy in response to past experience and new information" (Hall, 1993, p. 278).

What distinguishes the climate domain, however, is not the abstract need for learning but its specific object: how to design and implement contestation-prone policies in ways that allow them to keep functioning under sustained contestation, that is, to ensure policy viability. This requires a particular kind of empirical evidence that is currently in short supply. While contestation has received substantial attention in the literature (e.g., its concepts, actors, dynamics, drivers, and patterns) empirical perspectives on contestation conditions as a policy problem (in a constructivist sense)[18] at the post-adoption stage, and the corresponding strategies for addressing it, remain underdeveloped. Where such evidence does exist, it tends to come from two sources, neither fully satisfactory. The first is policy consultancy, which typically delivers prescriptive "shopping lists" of best-practice solutions detached from systematic evidence and inattentive to context (Keele, 2019; O'Brien, 2013), producing the "problem-solving bias" that Hoppe (2010, p. 26) identifies in policymaking. Critiques of such solutionism offering easy fixes in policy practice have been abundant largely stemming from the premise that "wicked problems are never solved" (Rittel & Webber, 1973, p. 160). The second is the small body of well-rounded academic work on durable policymaking under contestation (Lockwood, 2013; Patashnik, 2019), which is largely based on single or small-N case studies and combines theoretical argument with the authors' own observations rather than triangulating with practitioners' interpretations. As Jordan and Moore (2023, p. 439) note, what is missing is exactly that triangulation: practitioner accounts of what contestation conditions are a problem of, and of what can be done about it.

Therefore, I ask the following research question: how do policy experts problematize conditions of public contestation against hard climate policy, and what possible action points

[18] Based on the constructivist tradition, policy problems are seen as the product of a political process of framing and, rather than being objective, represent social constructions (Bacchi, 2009; Berger & Luckman, 1966; Dery, 1984; Veselỳ, 2007). In contrast, the objectivist stance implies that the problems are real and have relatively unambiguous characteristics that fit a definitional framework (Peters, 2005; Hoornbeek & Peters, 2017).

they propose to enhance policy viability in the face of such contention? To do so, I draw on structured interviews with 62 policy experts from 16 OECD jurisdictions to explore their perspectives on public contestation of hard climate policies and elicit their insights for future policymaking. The interviewees are approached as "problem brokers" (Knaggård, 2015): on the one hand, they help identify policy problems (i.e., specific tensions conditioning contention); on the other hand, they generate ideas about possible targeted policy action (without pressure on delivering solutions). I use a qualitative, interpretive research design using a thematic analysis (Braun & Clarke, 2006; Fischer, 2006, Chapter 27) based on structured interviews with climate policy experts reflecting on mass publics' perceptions of climate policies prone to contestation.

Following the work done in Chapter 4 on key conditions of climate policy contestation, I thematically organize the policy experts' insights around five topics: (i) policy demandingness, (ii) policy unfairness, (iii) socio-political polarization, (iv) lack of concern regarding climate change, and (v) information provision. This chapter takes those conditions as a thematic scaffold and asks a different question: not which combinations of conditions generate contention, but how policy experts problematize each condition into a specific tension, and what action points they see as needed. This work comes as a response to a call for "finding ways to reduce contestation enough to achieve 'sufficiently' acceptable climate policy" (Chapter 4, p. 89).

The findings elicit five underlying policy problems associated with the conditions for public contestation to hard climate policy: policy unaffordability, ineffective redistribution, policy misunderstanding, partisan capture, and policy legitimacy deficit. Policy experts pinpoint that each problem evokes a set of possible action points (spanning both policy design and policy context) which could help mitigate the magnitude of contestation, thus, contribute to enhancing policy viability. The developed framework showcases why it is crucial to diagnose which policy problem (or combination of problems) is at issue before reaching for action, because the appropriate mode of action differs.

The chapter makes three contributions. Conceptually, it foregrounds the role of policy experts as problem brokers who problematize conditions of contestation to distill policy problems. It also introduces policy action points as an analytical category for targeted, problem-oriented guidance that can take the form of either direct intervention or strategic orientation. Empirically, it provides a structured map of how five conditions of contention are problematized by policy experts across 16 OECD jurisdictions, and of the repertoire of action points they propose. Practically, it offers policymakers some guidance for pinpointing the specific tensions and the corresponding policy action points, at the level of granularity which is often blurred in much existing prescriptive work.

6.2 LITERATURE BACKGROUND

6.2.1 Policy learning: bridging epistemic and reflexive modes

Policymaking as "a form of collective puzzlement on society's behalf" (Heclo, 1974, p. 305) is profoundly marked by ambiguity and uncertainty (Fowler, 2021; Matland, 1995). Ambiguity refers to "a state of having many ways of thinking about the same circumstances or phenomena" (Feldman 1989, p. 5 as cited in Herweg et al., 2018, p. 18). In turn, uncertainty is usually understood as a lack of precise information when "the precise value of an estimate is not set" (Jones & Baumgartner, 2012, p. 7). To cope with these adversaries of policymaking, the role of policy learning broadly defined as "the updating of beliefs based on lived or witnessed experiences, analysis or social interaction" (Dunlop & Radaelli, 2013, p. 599) becomes central (Hall, 1993; Heclo, 1974; Rose, 1991).

Whose beliefs update, and how, depends on the kind of problem being learned about. At the general level, Dunlop and Radaelli (2022) distinguish four genera of learning, each defined by a predominant actor group and by problem tractability: epistemic (expert-driven), reflexive (citizen-centered), bargaining (interest-driven), and hierarchical (court- and standard-setter-driven). Since the problem of climate change is of low tractability (Lazarus, 2008; Levin et al., 2012; Rietig & Laing, 2017), epistemic and reflexive modes of learning come to the fore (i.e., upper and lower left quadrants of Figure 6.1).

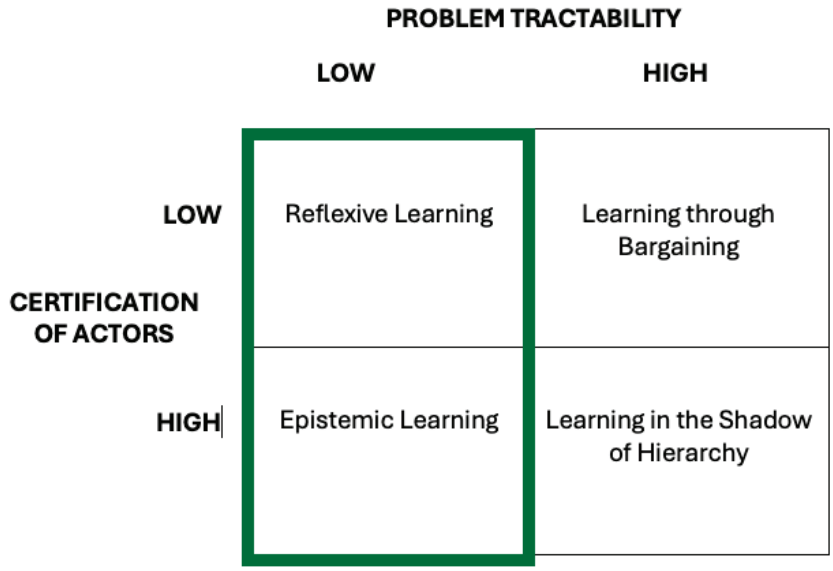


Figure 6.1. Mapping the four genera of the policy learning literature with the focus on climate change (Source: Dunlop & Radaelli, 2013, p. 603; highlight added by the author).

Epistemic learning is driven by the epistemic community (also referred to as a 'policy community' in the literature), which denotes "a mainly loose connection of civil servants, interest groups, academics, researchers and consultants (the so-called hidden participants), who engage in working out alternatives to the policy problem of a specific policy field" (Herweg, 2016, p. 132). Policy experts usually present the core of such a community (Herweg et al., 2018, pp. 22–23) appealing to scientific knowledge and technical expertise to explore policy content and provide insights into how some predefined policy goals can best be attained (Dunlop & Radaelli, 2013). However, as Falk Daviter observes, "epistemic learning does not provide the reflexivity needed to deal with the challenges of shifting problem boundaries, incompatible and competing problem perceptions and unclear or evolving evaluative criteria — in fact, it often stifles it" (Daviter, 2018, p. 161).

Reflexive learning, by contrast, refers to knowledge use that affects how policy problems are understood and perceived by citizens (Dunlop & Radaelli, 2022). This speaks to the idea of "national mood", a term popularized by Kingdon in his seminal work "Agendas, Alternatives and Public Policies" (Kingdon, 2003, Chapter 7) implying presence of "a large number of people out in the country are thinking along certain common lines" (Kingdon, 2003, p. 146). While surveys and opinion polls might be the first thing that comes to mind for estimating "national mood", Kingdon suggested "not to confound the national mood with the results of opinion polls" (Herweg et al., 2015, p. 438) due to representation bias of those polls and dynamic swings in public opinion (Kingdon, 2003, pp. 147–149). An alternative option is to estimate the national mood via policymakers' perceptions regarding the acceptability of a policy to the general public (Kingdon, 2011, p. 66, p. 147) since "people in and around the government" are well positioned to sense a national mood (Kingdon, 2003, p. 146). In this sense, policy experts perform a role of "problem brokers" defining conditions as problems and pointing out what needs to be done (as opposed to policy entrepreneurs who need to both define the problem and deliver on solutions) (Knaggård, 2015, p. 452). Policy experts as policy brokers thus "become skillful advocates of particular problem definitions and acceptable solutions" (Hoefer, 2022, p. 4).

Bridging epistemic and reflexive modes of policy learning seems essential since such complex problem as climate change require both epistemic and reflexive learning (Daviter, 2018, p. 148). This would also allow for upscaling individual learning to collective one which is a pitfall frequently accompanying learning (Moyson et al., 2017, p. 165). The framing I adopt — policy experts as problem brokers interpreting mass publics' perceptions — offers one concrete operationalization. In this role, experts are selected not for their technical knowledge of policy content but for their capacity to (re)identify and (re)define policy problems conditioning contestation on the basis of how mass publics perceive them. The asymmetry with conventional epistemic consultation is deliberate: experts here suggest problem definitions and directions for action, not solutions to a given problem.

6.2.2 Contentious climate policymaking: conditions of contestation and policy viability

Contentious climate policymaking straddles between two distinct fields of studies — contentious politics (where contestation comes as a primary object of inquiry) and climate policy (treating contestation as a traveling companion of climate policymaking). Broadly defined, contestation refers to making collective claims that bear on someone else's interests (Tilly, 2008, p. 5) thus featuring a subject (i.e., a claim-maker), an object (i.e., a claim-receiver), and a claim itself. Situating it within the field of climate policy, typically this would involve mass publics/organized interests making a (number of) claim(s) vis-à-vis government's climate policies (or lack of thereof). Importantly, contestation does not automatically produce policy change, but it reshapes political opportunity structure changing what policies become politically possible (Meyer & Minkoff, 2004). This confirms that in the wake of increased public scrutiny and contestation, policy success is no longer defined by policy feasibility alone (i.e., 'doable under realistic assumptions' (IPCC, 2022)) but also — and perhaps most importantly — by policy viability, understood as policy capacity to function once adopted including the ability to sustain through contestation.

Enabling viability requires understanding the conditions under which contestation arises. The present chapter builds on the framework established in Anisimova and Patterson's work (2025), which through fuzzy-set Qualitative Comparative Analysis identified five conditions that, in combination, drive post-adoption contestation against hard climate policy: policy demandingness ("the extent to which a policy makes demands on target groups"), policy unfairness (lack of (re)distributional fairness), socio-political polarization (opposing political beliefs and ideologies, hostility and negative emotions towards opponents), lack of climate change concern (relative de-prioritization of climate change concern within a society), lack of information provision (absence of accompanying information about policy). I retain this scaffold for the three reasons stated in the introduction: empirical grounding, inductive corroboration in the present material, and analytical continuity. What this chapter adds is two subsequent moves: from conditions to problems, and from problems to policy action points.

6.2.3 From conditions to policy action points: a conceptual pathway

To bring into conversation the literature on policy learning (which views policy experts as problem brokers capable of bridging epistemic and reflexive modes of learning) and the literature on contentious climate policymaking (with its specific focus on the conditions of mass publics' contestation), I conceptualize the relationship between the problematized conditions of contestation and corresponding policy action points. To identify relevant policy action points, it is essential to understand first what contention is a problem of — that is, the underlying tension that needs to be addressed through policy action in order to navigate possible backlash.

Given the interpretative nature of problem identification, I draw on experts' interpretations of the conditions of contention based on their reading of 'national mood' (Kingdon 2003, pp. 146-149) expressed by mass publics essential to identify the problems that underpin those conditions. Thus, focusing on the problem, policy experts elaborate possible policy action points to enhance policy viability. The conceptual pathway is therefore: condition → (problematization) → policy problem → (translation) → policy action point (direct intervention or strategic orientation) (Figure 6.2). Each of the elements of the pathway is explained in the following sub-sections.

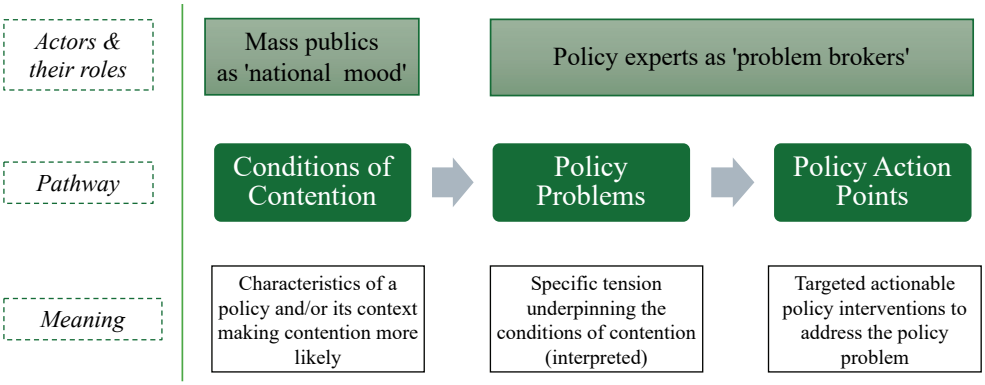


Figure 6.2. Conceptual pathway depicting conditions of contention as policy problems followed by policy action points to address those problems.

6.2.3.1 Conditions as descriptive characteristics not problems per se:

Each of the five conditions is, in the first instance, a descriptive characteristic of policy content or context — part of "the situation" within which a policy operates (Herweg et al., 2015). As Hoornbeek and Guy Peters (2017, p. 381) put it, a problem is "a disconnection between existing conditions and desired states of affairs"; conditions in themselves are not problems, but parts of reality.

While policy demandingness and socio-political polarization are formulated in relatively neutral, descriptive terms (i.e., referring to the costs and behavioral changes a policy requires or the distance between political camps respectively), it is important to acknowledge that the remaining three conditions are already pre-problematized in their conventional formulation. Policy unfairness is not a descriptive feature of policy reality but rather an evaluative judgment about distributive impact. Nonetheless, policy unfairness understood as "presence of features or perceptions that a policy is unfair" (Chapter 4) is too broad to pinpoint a specific issue that needs to be addressed by a policy. While lack of climate change concern and lack of information provision presuppose a normative baseline against which observed levels fall short, it remains unclear what policy-related tensions are at play here. Hence, I argue that the move from condition to problem is mediated by the policy experts interviewed for this study

(acting in their capacity of problem brokers), whose accounts pinpoint the specific tensions that transform a descriptive feature of policy reality into a policy problem.

6.2.3.2 Problematized conditions as policy problems

As Charles Anderson in his seminal work The Logic of Public Problems: Evaluation in Comparative Policy Research observes (1978, pp. 19-20): "Policymaking is not simply problem-solving. It is also a matter of setting up and defining problems in the first place". Key assumption in policymaking process is "ambiguity in problem definition" since different actors define the problem differently (Hoefer, 2022, 2). Following Stone's seminal work, "problem definition is never simply a matter of defining goals and measuring our distance from them. It is rather the strategic representation of situations" (Stone, 2012, p. 133). As Bacchi (2025) neatly summarizes Osborne's argument (1997, p. 174) that 'policy cannot get to work without first problematizing its territory' indicates the need to shift one's analytic focus from assumed 'problems' to problematisations" (p.8).

Following Hoppe's influential work on The Governance of Problems, problematization refers to problem-structuring which incurs "analysis and evaluation of competing problem representations and problem framings, with a view to their possible integration as intermediary step towards creating common ground for a feasible, doable problem definition for policy adoption and implementation" (2010, p. 30). He goes further in specifying that such problematization refers to making "an indeterminate situation into a problematic: i.e. transforming the confusing situation into an intelligible object of study, by specifying into questions the web of difficulties around one major 'problem' (cf. Foucault, 1988: 257; Deacon, 2000; Alvesson & Sandberg, 2013)" (p.2). Problems "require interpretations" and therefore, "sociopolitical constructs" (p. 2) and "representations of problematic situations" (p.2). Since problems are constructs, they usually have many frames ("problem representations"). In this work, I focus on what Entman describes as "problem" framing, that is, zooming in on the "nature and category of a problem" (Entman, 1993), as shared by the interviewed policy experts.

I approach such "shared problematizations" as "triggers for better policy designs and implementation practices" (Hoppe, 2025, p. 1). In other words, identifying the problem involves identifying the situation which is "undesirable", and which consequently requires some sort of corrective action which is "doable, effective, and efficient" (Hoppe 2025, p. 6). Hence, in this chapter, based on policy experts' perspectives on each of the conditions, I discern the underlying policy problems which further become subjects to targeted policy action.

6.2.3.3 Policy action points as orientation for policy choice

To denote targeted actionable policy interventions providing either direct action or practical strategic orientation in contexts where direct action is not feasible (e.g., for multidimensional issues such as polarization or unfairness), I use the term 'policy action points'. A policy action

point is a targeted, problem-oriented piece of policy guidance that may take the form of either a direct intervention or a strategic orientation, depending on the tractability of the problem it addresses.

The concept draws on several related notions of targeted policy action while combining the most relevant elements from each. From fuzzy action moments (Patterson et al., 2021), defined as "a practicable course of action within a given set of real-world circumstances" (p. 1), it retains the situational and bounded character of policy action, while moving beyond their emphasis on when action becomes possible and rather focusing on what action is needed. From policy intervention (Laborde et al., 2019), understood as a public action designed to address a specific problem through allocated resources and intended direct effects, it retains the targeted orientation, while letting go of the requirement of direct effect in order to accommodate problems that require mostly strategic navigation. From policy entry point (Lázaro et al., 2025), defined as "a system element or node that, if changed, leads to system-wide changes", it retains the implication of leverage, while operating at a level of policy rather than system mapping. From incremental policy steps, drawn from the radical incrementalism tradition19 (Halpern & Mason, 2015) and denoting "a strategy for achieving transformative, long-term change through small, consistent, and actionable steps", it retains the recognition that meaningful change is often built cumulatively, while avoiding commitment to a predefined trajectory. What the notion of "policy action points" adds is the possibility of two modes of action under one term: (i) direct intervention where the problem permits (e.g., to adjust a policy design feature), and (ii) strategic orientation where it does not (e.g., to address a broader contextual problem). This dual character is essential for the analysis that follows, because the five problems identified in this chapter differ precisely in the mode of action they allow for.

6.3 RESEARCH DESIGN

6.3.1 Selection of Cases and Interview Participants

The substantive focus on hard climate policy — pricing and taxation instruments, regulatory instruments, and phase-out policies — reflects the study's core theoretical interest. Hard policies impose tangible costs and constraints on identifiable target groups, and so generate the conditions under which mass public contention is most likely to arise as a policy-relevant phenomenon (Chapter 4). Soft instruments (information campaigns, voluntary measures, subsidies) generate weaker contestation dynamics and would not allow comparable analytical traction on the puzzle the study addresses.

[19] "It bridges the gap between radical ambition and realistic implementation, allowing for significant system transformation without the overwhelming risk or paralysis often associated with abrupt, large-scale changes." (p. 34)

The 27 policy packages were selected through a four-step process developed in earlier work (Chapter 3): screening the Climate Policy Database to identify hard policy instruments; selecting two sectors of particular importance (general framework policies, and energy and heat policies); filtering for policies that imposed costs on mass publics; and consolidating closely related policies into packages where appropriate. The original 50-package sample (Chapter 3) was further screened for the present study to exclude cases that did not de facto impose substantial costs or constraints on target groups, established through closer reading of policy documents and consultation with country experts. The sample does not select on the dependent variable (contestation): both contested and uncontested policies are included – see Appendix 6.1 for the list of cases.

The target population for this study is policy experts with substantive knowledge of one or more of the sampled policies or of national climate policymaking more broadly. This includes former and current policymakers, policy advisers, policy consultants, and policy analysts — actors often described in the literature as moving fluidly between policy and academic circles, "help[ing] governments translate problems into actionable policies and programs" (Hoppe, 2010, p. 4). Crucially, experts are positioned in this study as problem brokers (Knaggård, 2015) rather than as sources of technical expertise. They were therefore invited to reflect on mass publics' perceptions and reactions to hard climate policies, rather than to deliver assessments of policy content based on "hard facts."

Participants were identified through two complementary strategies: snowball referral from earlier interviewees (effective for capturing well-networked national policy communities) and desk-based mapping using policy committee rosters, press coverage, policy documents. The two approaches were used in parallel to mitigate the selection bias each carries on its own: referral chains tend to over-represent particular networks; desk-based mapping tends to over-represent publicly visible commentators. The combination produced a sample diversified across institutional positions and policy stances.

The number of interviews per country ranged from three to six, with the precise number reflecting (i) how many policies the country contributed to the sample, (ii) how confident respondents were about specific details, and (iii) how closely the policies within a case were related. I do not claim that 3–6 experts can comprehensively represent a national policy landscape; the claim is more modest. With a structured protocol and a focus on a delimited set of policies, this number is sufficient to identify recurring problematizations and action points within a national context, and the cross-national breadth (16 jurisdictions, 62 experts) compensates for the per country thinness by allowing convergent themes to be identified across rather than only within national contexts.

The study was approved by the Ethics Review Board (Geo S-23000). All participants (see the list in Appendix 6.3) were informed of the purpose of the research, the use of anonymized

quotations, and their right to withdraw at any point. Quotations are attributed to numbered participants (together with their country abbreviation) (e.g., CAN_1, CAN_2, etc.) without revealing institutional affiliations where these would risk re-identification.

6.3.2 Data Collection through Structured Interviews

The format of structured interviews was chosen to ensure comparability across cases with 62 participants distributed across 16 jurisdictions and 27 policy packages. Without a common set of anchor questions, cross-case interpretation would be subject to differences in what was asked rather than what was meant. To mitigate relative rigidity of a structured protocol open prompts and follow-up probing within each anchor question were included to allow for interpretive depth on a stable comparative base. This design choice should be read as a hybrid: structured at the level of questions, interpretive at the level of follow-up and analysis.

The interview protocol consisted of ten anchor questions designed to elicit experts' interpretations of (i) the trajectory and reception of the policy under discussion, (ii) the conditions they associated with public contestation or its absence, and (iii) the design and contextual choices they considered relevant for managing contestation in future policymaking. The complete questionnaire is provided in Appendix 6.2. Interviews lasted 45–60 minutes on average and were conducted either in person or via video call, recorded and transcribed with participant consent.

6.3.3 Data Analysis Strategy

I conducted thematic analysis (Braun & Clarke, 2006) using NVivo software, in two interrelated phases. The first phase was deductive, coding interview material against the five conditions established in Chapter 4 — demandingness, unfairness, polarization, lack of climate concern, lack of information provision. The second phase was inductive, identifying within each coded condition the specific tensions experts articulated as the problem the condition produced (e.g., affordability under demandingness; asymmetric redistribution under unfairness). The labels for the resulting policy problems are my analytical synthesis, drawn from but not directly taken from the experts' words. This dual phase makes the analysis interpretive rather than purely descriptive: the problems are not given by the conditions, and they are not simply reported by the experts; they are constructed in the dialogue between the framework and the data.

A third phase mapped the policy action points associated with each problem, again coded inductively. Action points were retained when they were articulated by multiple participants across multiple jurisdictions (operationalized as: mentioned by at least six participants across at least two countries (i.e., roughly 10% of the interviewees and jurisdictions they represent)). This threshold filters out idiosyncratic suggestions and ensures that what is presented as an action point reflects a recurring rather than singular position (which would be too many to reflect on here). Where this threshold is met, I report the action point and indicate its

prevalence using qualifying language; where specific frequencies can be reported (e.g., "over 90% of participants" for the role of cost in driving contestation), I do so.

6.4 RESULTS

In this section, sub-sections 6.4.1-6.4.5 present the policy problems derived from each of the five conditions and the corresponding action points drawn from the interview data. The conditions span both policy design (demandingness, unfairness, information provision) and policy context (socio-political polarization, climate change concerns), and the policy action points retain this orientation. Where action points address design problems they tend to take the form of direct intervention; where they address contextual problems they tend to take the form of strategic orientation. In sub-section 6.4.6, I provide several cross-cutting observations based on the results.

6.4.1 Demandingness

Policy demandingness operates along two dimensions that together give rise to what the interviewed experts referred to as the underlying problem of policy unaffordability20. As defined in Chapter 4, demandingness refers to "the extent to which a policy makes demands on target groups", and in practice this manifests both (i) as policies that by design impose disproportionally high burdens and (ii) as policies whose demands are perceived as disproportionally high by their audience (a perception often sharpened by concurrent contextual developments that make the felt costs more acute). Both dimensions point to the same gap between 'what is needed' to achieve policy goals and 'what is possible for the target group', and it is this gap that the interviewed experts name as the problem of policy unaffordability. Framing demandingness as an affordability problem, rather than merely a question of policy stringency, is therefore the essential first step in identifying where policy action is required.

Experts agree that costs are the primary driver of contestation, but they stress that the challenge lies in how costs are introduced rather than in their presence as such. Over 90% of the interviewed policy experts agree that both material and non-material costs (especially when significant and unexpected) remain the primary driver of contestation across all cases, in combination with other factors. Yet hard climate policies, by their nature, inevitably involve the imposition of costs and other elements of coercion, so the question is how to make such costs more feasible to bear without "breaking a camel's back" (FRA_34). To this end, experts highlight the importance of avoiding large and sudden cost shocks associated with

[20] Affordability here is distinct from (economic) feasibility: the former implies the relation between (non)material costs and the resources of an individual/household (e.g., disposable income vs. carbon tax costs); the latter implies policy costs in relation to policy generated benefits. Basically, there are two distinct logics – "ability to pay" vs "cost-benefit analysis", where the former bears the utmost importance for hard policy target audience.

the introduction of a policy. Managing the pace and visibility of costs therefore emerges as the guiding principle for dealing with demandingness (FRA_22; CRI_1; ITA_37; ITA_49).

A first action point is the use of a conditional escalation mechanism that ties policy stringency to evolving contextual parameters. Such a mechanism is suggested to be key for ensuring policy adequacy to the context and cost appropriateness for the target audience. The Swiss CO2 levy illustrates this logic: it has been designed with some elements of flexibility in mind, where the rate increase is subject to meeting the emissions targets (CHE_43, CHE_33; CO2 Act, 2011). Building conditionality into policy design thus allows governments to escalate demandingness without severing the link between 'what is asked' and 'what is bearable'.

A second action point concerns the architecture of the policy itself through layering, bundling, and sequencing. Experts propose combining policy layering (i.e., the process of adding new policies, rules, or regulations on top of existing ones (Howlett et al., 2018)) with bundling (also referred to as "policy packages" or "policy mixes" (Wicki et al., 2019)), and sequencing (defined as "the strategic, temporal ordering of policies, where earlier actions enable or support the adoption of more stringent, subsequent policies" (Montfort et al., 2023; OECD, 2025a; Pahle et al., 2018). Canada's carbon pricing package exemplifies the combined use of all three: effectiveness is enhanced by layering a federal backstop onto provincial systems, bundling carbon tax with clean energy investments, and sequencing gradual price increases over time so that households and firms can adjust while emissions reductions steadily strengthen (CAN_45; CAN_35; CAN_41). Viewed together, these three design moves offer policymakers concrete levers for distributing demands across time and policy instruments rather than concentrating them in a single, abrupt reform.

A third action point is to devise gradual and predictable pathways that outline how stringency — and therefore costs — will rise over time. This helps reduce regulatory uncertainty and gives target audiences time to plan accordingly and adapt. Germany's Coal Exit Law provides one such example, setting clear expectations about the direction and timing of policy tightening and thereby supporting planning, compensation schemes, and structural adjustment (DEU_50, DEU_25; Bundesregierung, 2022b). In combination with conditional escalation and smart policy architecture, predictable pathways turn demandingness from a shock into a trajectory that target groups can prepare for.

6.4.2 Unfairness

The condition of unfairness is originally defined as the "presence of features or perceptions that a policy is unfair" (Chapter 4), and according to the interviewed experts it describes situations in which a policy disproportionately disadvantages specific groups and thereby contributes to, or is perceived as contributing to, existing inequality (Brock, 2020). As with demandingness, this condition manifests in both perceived and actual forms. Unfairness, as

experienced by mass publics, ultimately stems from the dual problem of asymmetric distribution and redistribution. While the interviewees acknowledge both sides of the problem, they pinpoint that the distribution asymmetry is, in itself, often a feature of policy design (FRA_22, FRA_4), and it is crucial to assure sufficient tangible compensation resulting from effective redistribution mechanisms. The issue of ineffective redistribution also helps explain why instruments such as carbon pricing and taxation are often seen as inherently regressive and inflationary (Douenne & Fabre, 2020), with highly visible and unavoidable costs and benefits which are less immediate, less visible, and/or unevenly distributed (Bakaki & Bernauer, 2017). Addressing unfairness, then, requires more than adding a redistributive component; it requires making redistribution itself perceptible and effective.

The first action point is to design redistribution mechanisms that are visible, understandable, and targeted, and that deliver tangible benefits. Experts stress that the mere presence of redistribution within a policy package is not enough (CHL_7; CAN_45; FRA_4). The Swiss CO2 Act illustrates the limits of a technically progressive but perceptually weak design: although the compensation scheme distributes most of the levy revenue and is often cited as progressive and well-designed, in practice it is perceived as ineffective because compensation through reductions in health insurance premiums and payments to firms through payroll channels is "hidden" (CHE_40), "weakly targeted" (CHE_33), and "poorly understood" (CHE_43). Canada's federal carbon pollution pricing system, by contrast, is frequently held up as a model of increasingly visible and structured redistribution21: quarterly cash payments, accompanied by a rural supplement of 20% in 2024 (Gouvernement du Canada, 2025), have made redistribution more frequent, "visible and tangible" (CAN_45), thereby strengthening the policy's perceived fairness (CAN_12, CAN_35). The contrast between the two cases shows that fairness is produced as much by the design of the payment form as by the overall progressivity of the scheme.

A second action point is to improve fairness perceptions through earmarking of revenues for climate-related purposes. This approach is also supported by the evidence in the literature (Baranzini & Carattini, 2017; Kallbekken & Aasen, 2010). Korea's ETS illustrates the mechanism clearly, as auction revenues are channeled into the Climate Response Fund to support mitigation activities and climate-related technological innovation, with positive effects on perceived fairness (KOR_38, KOR_17). Japan's carbon tax, formally known as the Tax for Climate Change Mitigation, similarly earmarks all revenue for projects aimed at reducing energy-originated emissions and promoting energy savings and renewable energy development (JAP_21, JAP_13). Hence, earmarking links the costs imposed by a policy to a

[21] Given the interviews timeframe (2023-2024), the interviewed policy experts referred to the Climate Action Incentive Payment (CAIP) which later in 2024 evolved into Canada Carbon Rebate (CCR). CAIP and CCR are distinct from the original Climate Action Incentive which had very low salience due to a cumbersome claiming procedure (i.e., it had to be claimed annually through income tax returns) and was deemed quite ineffective in gaining public support (Mildenberger et al., 2022). In 2025, CCR was discontinued due to setting the rate of its base source – the federal fuel charge – to zero (Gouvernement du Canada, 2025).

visible and thematically consistent purpose, reinforcing the legitimacy of the redistribution logic.

A third action point which is particularly relevant where institutional constraints limit classic earmarking, is to revive a broader eco-social contract that integrates social and climate policies. In some countries, such as Chile, the earmarking of taxes is constitutionally prohibited, requiring that taxes go into the general treasury rather than being linked to specific expenditures. Under these limitations, Chile has pursued what can be described as a revival of the eco-social contract, implying the integration of social and climate policies (Bergquist et al., 2020; Hujo, 2026; IDDRI, 2023). The introduction of Chile's carbon tax, for instance, was closely coordinated with social sector reforms (public education and pension systems) as well as pollution reduction efforts, all of which were funded from the general budget, including tax revenues (CHL_51, CHL_7). Germany's coal phase-out offers a parallel example, merging climate and social policies through workforce reskilling and lifestyle reorientation in the affected regions, which produced a broader societal transition (DEU_47, DEU_50). As Participant 50 describes the situation in a coal-mining region:

> "The biggest problem was that roughly 75 percent of the working-age population works, or had worked, in the coal industry, and that was the main reason why people initially wanted to boycott the <Coal Exit> law. Authorities focused on creating jobs in this region by stationing a firefighting aircraft squadron and a train depot and offering reskilling and training people. They did their best so the local population's argument "They take our jobs" did not really hold" (DEU_50).

6.4.3 Lack of information provision

Providing information about policy is often seen as a "double-edged sword of policymaking" (CRI_55): on the one hand, it may decrease policy contestation by improving policy awareness; on the other hand, it can intensify disagreement by making the policy more prominent in public debate (Chapter 4). Interestingly, most of the interviewed experts to a significant extent attributed lack of contestation against policies to the citizens' non-awareness about the policy ("tacit consent"). At the same time, speaking of policies faced with public backlash, experts did highlight the lack of (accessible) policy information as one of the factors inducing contestation.

The inadequacies of information provision ultimately point to the problem of mass publics' misperception of the policy. When policy audience is not sufficiently equipped with adequate information to evaluate the policy on its merits, "acceptance becomes thin, and misperception breeds the suspicion that something is being concealed" (USA_2). Framed in this way, the challenge for policymakers is less about maximizing exposure and more about enabling comprehension. To enhance the policy information and consequently, people's understand-

ing of the policy, policy experts evoke three key aspects: timing, content, and form in which such information is provided.

A first action point is to pay close attention to the timing of policy communication. Strategically chosen timing can enhance receptivity, and communication should not only respond to moments of crisis (with the usual pervasive narrative of "the lack of crisis readiness" (MEX_9)) but also anticipate them through preventive engagement before policies impose tangible costs. Aligning information efforts with broader reform agendas, electoral cycles, or windows of political opportunity can further amplify attention, while avoiding periods of low public engagement, such as holidays, ensures that messages are not lost (COL_42, CHL_44). Getting the timing right, in other words, determines whether information is received as meaningful context or as background noise.

A second action point concerns the content of the information itself. Information must strike a balance between being neither overly technical nor overly simplistic, while clearly conveying the policy's net benefits, often through a pro-growth narrative that resonates with everyday concerns. Linking policies to local, tangible issues and embedding them within wider agendas, such as inequality reduction or pollution mitigation, can increase their relevance, and proactively addressing likely criticisms helps pre-empt opposition. The Chilean carbon tax illustrates this approach, combining data-driven arguments about reduced externalities with compelling public health benefits tied to pollution mitigation (CHL_44, CHL_46). Well-calibrated content thus functions as a bridge between the technical substance of a policy and the lived concerns of its audience.

A third action point is to rethink the form of communication so that it engages rather than merely informs. Governments must move beyond purely informational, technocratic approaches toward more engaging strategies, which calls for the professionalization of communication, since "government is not a coms machine" (CHE_43), possibly through a dedicated unit. Experts also highlight the value of accessible language, value-based storytelling, appeals to identity and emotion, and diversification of outreach channels, as well as participatory mechanisms such as citizens' assemblies, which move beyond formal consultations and foster deeper engagement and legitimacy (GBR_60). Taken together, attention to timing, content, and form reframes information provision from a compliance task into a core instrument of policy viability.

6.4.4 Socio-political polarization

Socio-political polarization is a policy condition manifesting in socio-economic and political divides is deemed to comprise three dimensions: 1) socio-economic (segmentation along social class, income levels); 2) ideological (separation based on political beliefs and convictions); 3) affective (intense emotional dislike and distrust of the opposing target group) (Nezi et al., 2023; OECD, 2021; Smith et al., 2024). While the first and second dimensions have a

substantial basis, the third one is often subject to pervasive political framing and manipulation via media ("policy opposition was clearly a political project" (AUS_53)). This implies that support for the policy ceases to be a judgment on the merits and becomes a marker of political identity and ideological beliefs. This denotes the problem of 'partisan capture' vis-à-vis an issue-area, a policy, and/or authority, that is, the subjective identity-based framing of reality potentially leading to flawed judgements, poor decision-making, and affective resistance. Tackling polarization in climate policymaking, therefore, requires working simultaneously on participation, institutional architecture, democratic quality, and the information environment.

The general recommendations included the following action points. First, to ensure inclusivity and representativeness resulting in meaningful participation without "window dressing" via passive online publication of policy drafts on governmental websites (KOR_17). This implies strengthening multistakeholder capacities institutionally (AUT_3, FRA_34, USA_6), for example through deliberative bodies such as France's Citizens' Convention for Climate (which came about in the aftermath of protests against carbon tax (formally known as Carbon Charge Component (2014)) and Germany's Coal Commission deciding on the form and shape of the coal phase-out (2020), both of which brought together diverse stakeholders and produced actionable policy recommendations.

A second action point is to boost coordination and cohesion both at the policy- and at the governance levels. This can be pursued through inter- and intra-ministerial coordination (KOR_58) for instance, following the model of a "super-ministry" approach in Switzerland, where the Swiss federal administration is organized into seven roughly equal departments. For example, Federal Department of the Environment, Transport, Energy and Communications (DETEC) illustrates efforts to streamline environmental, energy, and transport policy portfolios under a single institutional umbrella, reducing fragmentation (CHE_33). At the same time, clearer delimitation of federal and sub-federal powers remains crucial, as illustrated by tensions and policy variation in Canada's carbon pricing framework where federal authorities clashed over carbon tax threshold with provinces (CAN_5, CAN_41, CAN_35); and the US Clean Power Plan (2012) imposing more ambitious climate policies than the state governments could agree to, sometimes creating regulatory overlap and inconsistency (USA_2, USA_59).

A third action point is to address broader democratic deficits (e.g., institutional credibility and accountability; anti-corruption measures) in order to help dampen distrust often portrayed as a polarizing force (FRA_22, CAN_5). This is particularly pertinent in the context of developing countries-members of OECD in the sample – Mexico, Columbia, Turkey. The interviewed policy experts highlighted lack of transparency, corruption, and cronyism (especially in relation to extractive industries) as key obstacles for functioning of the institutional ecosystem (MEX_8, TUR_14).

The fourth suggested action point is closely related to the third one and targets specifically the affective dimension of socio-political polarization. It highlights the importance of a diverse media ownership structure that avoids both business concentration and state capture. For instance, in Australia, high levels of media concentration have been strongly associated with polarized climate debates especially at times of Australia's carbon tax introduction (AUS_52, AUS_53), while in the United States partisan media ecosystems have contributed to entrenched divisions over Clean Power Plan (2014) and Affordable Clean Energy Rule (2019) (USA_2, USA_59). At the same time, in Turkey, the ever-increasing state influence over the media outlets has significantly limited balanced public debate in general and climate discussions in particular (TUR_14, TUR_18).

6.4.5 Lack of climate change concern

The lack of (or insufficient) climate change concern manifested in a low priority of climate action with respect to other (more pressing) issues, for example, costs of living ("end of the world vs end of the month" (FRA_34, DEU_47)), economic stability, security, unemployment, etc. Basically, this highlights the presence of distance – cognitive, experiential, geographic, material, temporal – between climate change and citizens (ITA_10). This condition itself is not a problem per se, but it does become problematic when experts articulate a tension between the urgency that climate science implies and the importance the issue actually has for mass publics whose consent and authorization public policies require (JAP_13).

This ultimately boils down to the problem of legitimacy deficit: without a concerned constituency, governments lack a robust and legitimate mandate to impose costly measures (Wallner, 2008). What makes low concern a problem rather than merely a fact about public opinion is the democratic premise that demanding policies must be authorized by, and answerable to, those they bind (2008, p. 425). This premise is heavily undermined when for mass publics, the issue does not have enough weight proportional with what is at stake (AUT_19). Similarly, paraphrasing Beetham, legitimacy deficit denotes situations when policies are "only weakly supported by societal beliefs" (Amenta et al., 2012, p. 122). As Participant 3 (AUT_3) observes, this is "where reluctance transforms into resistance". Closing this distance is, therefore, a precondition for any policy that asks publics to bear costs now for benefits that are diffuse and deferred.

To bridge this perceived gap between climate change and individuals, it is essential to first relate the impact of climate change to day-to-day lives and make it pertinent to lived realities. Social advertisement can help explain in the accessible language the impact of climate change and translate seemingly far-occurring processes into everyday practices (for example, the Swiss Info-Sheet Series22). Second, make climate change-related a mandatory part of education curriculum. For example, since 2020 Italy (first country in the world) has introduced climate change as a mandatory subject on the curriculum in pursuit of raising awareness about the nature and impacts of climate change. This is especially needed in the regions used to natural disasters (e.g., earthquakes, tsunamis) since at times population does not see an extreme weather events as a product of human activity due to the 'immunity to natural disasters' which reigns all over Japan (JAP_13) or Mexico (MEX_20).

While formal education on climate change spreads the knowledge, it is also closely linked to shaping the system of values, that is, what the experts refer to as identity-wiring (ITA_49). This third approach to combat reluctance about climate change aspires to raise "a new climate-aware generation" (CAN_11) be it through formal education like in Italy or Mexico (which amended its constitution for more climate education) or popular science communication on decarbonization like in Costa Rica (CRI_41) where a set of 12 accounts of Costa Rican people living in different futures; in some of these futures, the climate actions we envision in our public policy are underway; in others, precisely what our plans aim to prevent has already happened. Identity-wiring thus anchors awareness-raising in values and imagined futures, making climate action part of "who people understand themselves to be" (COL_36) rather than an external demand imposed upon them.

6.4.6 Cross-cutting observations

Figure 6.3 visually summarizes the results embedding them in the conceptual framework (Section 6.2.3) (for a more detailed summary see Appendix 6.4), and three main observations follow:

[22] Information sheets on redistribution of the CO_2 levy: accessed on 10/04/2026 via https://www.bafu.admin.ch/en/co2-levy-private-individuals

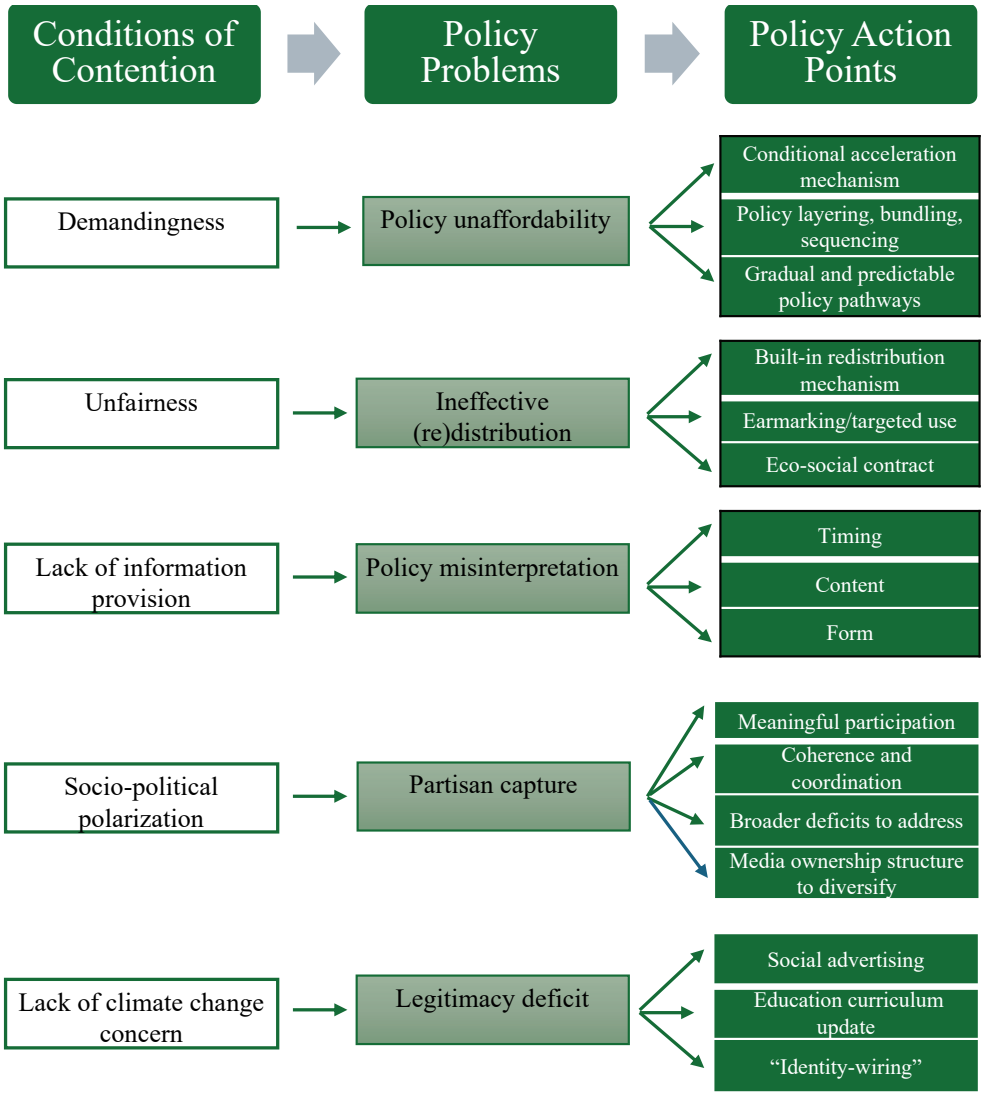


Figure 6.3. Summary of the results populating the conceptual pathway.

First, the mode of action available is structured by the locus of the problem: problems located in policy design (affordability, asymmetric redistribution, and (largely) misperception) admit direct intervention; problems located in policy context (partisan capture, policy legitimacy deficit) admit primarily strategic orientation. This is not a coincidence: design problems are by definition addressed through design choices, whereas contextual problems require working on conditions that no single policy controls.

Second, the problems are interconnected. For instance, misperception and partisan capture overlap heavily: partisan capture often operates through the misperception of policy content,

and resistant misperception is often a signal of partisan-captured framing. Affordability and asymmetric redistribution are two faces of the same distributive question: who pays and who is compensated. Recognizing these overlaps suggests that some action points work across multiple problems (e.g., visible redistribution mechanisms address both affordability and redistribution; participatory mechanisms address both partisan capture and legitimacy deficit), while others are problem-specific.

Third, the framework offers a practical implication: policymakers facing contention should diagnose which problem (or combination of problems) is at issue before reaching for action, because the appropriate mode of action differs. For example, a perceived-fairness problem cannot be addressed by escalation conditioning; a polarization problem cannot be addressed by communication alone. Hence, I argue that the systematic mapping of problem types to action modes is one of the principal practical contributions of the framework.

6.5 DISCUSSION

The first elicited problem – the problem of climate policy unaffordability – is frequently conceptualized by the literature under the umbrella of policy feasibility (Beiser-McGrath & Bernauer, 2019; Gärling, & Loukopoulos, 2007; Schrage & Haarstad, 2024). While both concepts are closely related and important for policy viability, they should not be conflated. Affordability here is distinct from (economic) feasibility: the former implies the relation between the resources of an individual/household and (non)material policy costs (e.g., disposable income vs. carbon tax costs); the latter refers to policy costs considered in relation to (potentially) generated policy benefits (Jewell & Cherp, 2023). Basically, two distinct logics are at play here – an "ability to pay" vs a "cost-benefit analysis"-logic, where in fact, the former bears the utmost importance for hard policy target audience (van den Bergh, 2010). Broadly speaking, inability of mass publics' to meet the demands of climate policy even before the benefits are being generated is crucial.

The challenge for policymaking here is that mass publics' ability to meet policy demands is heterogenous, context-related and thus, highly dynamic. Consequently, even a widely-praised approach of incremental increase in policy demandingness does not help mitigate contestation since it falls short of accounting for mass public capacity. The example of the Swiss carbon levy is an illustrative one: the policy incrementality was conditioned on meeting emission targets but not on socio-economic parameters (e.g., fluctuating disposable income, inflation, etc.). While the interviewed policymakers acknowledged the merit of factoring in such parameters, their response was "climate policy is largely done by economists who are adepts of the Tinbergen's law: one instrument – one target" (CHE_43), implying that adding extra parameters would "unjustifiably over-engineer the policy" (CHE_40) and redistribution mechanisms are in place to "restore justice where necessary".

The problem of ineffective redistribution is in turn, widely acknowledged in the literature on climate policymaking (Carattini et al., 2018; Mildenberger et al., 2022; Renner, 2018). The elicited policy action points (i.e., visible and tangible rebates, earmarking, eco-social fusion) are also in line with the scholarly debates on this issue (Beiser-McGrath & Bernauer, 2019; Kallbekken & Aasen, 2010; Maestre-Andrés et al., 2019). However, as repeatedly evoked by the interview participants, what requires particular attention is the temporal gap between losses and benefits associated with a policy (both material and environmental). To this goal, for instance, the frequency of rebates in Canada was changed from annual to quarterly and this helped not only with expediency of payments but also with transparency of tax expenditure. Earmarking also contributes to this goal and becomes widely encouraged to avoid such situations as, for instance, in Mexico, a 2025 review of federal budget noted that funding from environmental taxes has often been redirected to other infrastructure projects, including oil and gas. Additionally, redistribution plays different roles in policy design depending on the instrument type. Thus, 'carbon levy' implies that almost all proceeds are redistributed while 'tax' requires special additional provisions to arrange this. Furthermore, introducing an extra tax is often more controversial than a levy since it offers an alternative, less burden-laden framing. Ultimately, when it comes to redistribution, it is not only important how efficient it is but also how it is communicated and perceived, "policy benefits awareness is the key" (USA_2).

As for the other three elicited problems (i.e., policy misunderstanding, partisan capture, and policy legitimacy deficit), the interviewed policy experts pinpointed that effectiveness of communication strategies comes as a common element in ensuring viability of climate policymaking (Badullovich, 2022). In democratic societies, the plurality of information sources makes it difficult for governments to control narratives; when official communication is ineffective, informational vacuums are often filled by competing or misleading messages, potentially amplifying contestation. While existing research suggests that widespread knowledge and well-informed citizen support are not strictly necessary for the implementation of effective climate policies (Rhodes et al., 2014) , as elicited through the interviews, information provision remains crucial for minimizing resistance and preventing the escalation of opposition. This challenge is compounded by varying levels of public concern about climate change, which may stem either from competing socio-economic priorities or from ideological skepticism, both of which are closely tied to broader patterns of polarization (Bliuc et al., 2015).

While polarization is acknowledged by interviewees as an inherent feature of heterogeneous societies (JAP_12, GBR_60, AUT_3), they problematize its intensification and instrumentalization for short-term political gains which can significantly hinder policy acceptance. In this context, the "legitimacy of the communicator" (CRI_1) becomes a foundational condition for effective engagement, as messages are more likely to resonate when conveyed by trusted authorities. Consequently, adaptive and targeted communication strategies (i.e.,

capable of addressing diverse audience segments and tailoring frames to different value systems) are suggested as essential to navigating these complexities and fostering a more conducive environment for climate policy adoption (Areia & Tavares, 2026, pp. 8–9; Lachapelle, 2017; Millar et al., 2021).

6.6 CONCLUSION

In conclusion, the elicited insights from policy experts reiterated that viability of climate policies depends not only on their substantive design but also on how policies interact with socio-economic conditions, temporal dynamics, and public perception. Accounting for socio-economic heterogeneity is essential, as even incremental policy changes can impose uneven burdens across groups. Moreover, the temporal structure of policies matters — backloaded designs (e.g., those concentrating costs toward the end of a phase-out period (DEU_25, DEU_47)) may undermine perceived fairness and political feasibility, suggesting that the shape of the transition pathway is as important as the presence of gradual milestones. In this regard, aligning temporality with redistribution — starting with relatively low costs while ensuring rapid and visible compensatory mechanisms — can help ensure policy viability.

At the same time, disentangling policy content from its broader context remains inherently difficult, underscoring the need to address both simultaneously. Communication emerges as a cross-cutting element in this process, as there is often a significant gap between what a policy entails and how it is framed and perceived (Baranzini & Carattini, 2017; Gollier & Rohner, 2023). While information provision alone may not be sufficient to secure support, effective framing can play a decisive role, particularly in contentious reforms (Bez et al., 2026; Muradova et al., 2020). As emphasized by de Vries (2020), successful communication strategies should "keep it simple, balance the message, and provide an action perspective", thereby making policies more accessible and relatable for diverse audiences.

Finally, policymakers must navigate both short- and long-term horizons by combining targeted, actionable measures (e.g., effective redistribution mechanisms, incremental policy pathways) with broader structural interventions (e.g., tackling societal polarization and low climate-related literacy). The insights offered here should be understood as indicative rather than prescriptive, recognizing that policy design and implementation are deeply context-dependent and require a great degree of policy adaptability. Rather than downplaying complexity, future efforts should explicitly acknowledge and engage with it (Driessen, 2026), embracing adaptive and context-sensitive approaches to advance effective and publicly acceptable climate policy, thus ensuring their viability.

7

Chapter VII

Conclusion

7.1 REVISITING THE PUZZLE

Hard climate policies (i.e., pricing and taxation, regulation, and phase-outs) are widely seen as central to ambitious decarbonization (Fernández-i-Marín et al., 2026; Stechemesser et al., 2024), yet they impose tangible costs and constraints on identifiable target groups and so generate the conditions under which public backlash is likely to arise (Patashnik, 2019; Patterson, 2023; Stokes, 2016). The ex-ante public acceptance literature has produced a rich catalogue of factors associated with stated policy support (Bergquist et al., 2022; Drews & Bergh, 2015; Maestre-Andrés et al., 2019), and the contentious climate politics literature has theorized the political logic of post-adoption challenge (Patashnik, 2008, 2019, 2023; Patterson, 2023). What the literature had not yet produced was systematic comparative evidence on public backlash across the broader population of hard climate policies. Existing work has accumulated detailed knowledge of high-profile episodes (e.g., France's Yellow Vests (Driscoll, 2023; Martin & Islar, 2021), Australia's carbon tax repeal (Copland, 2020; Crowley, 2017)) but has largely relied on single or small-N case studies, leaving the empirical baseline against which any subsequent claim should be assessed largely unmapped (Heyen & Wicki, 2024).

From this setting four interconnected gaps emerged, each structuring one of the empirical chapters of the thesis (Section 1.3). First, the field lacked systematic medium-N evidence on the prevalence of public backlash. Second, the conditions producing backlash had rarely been brought together in a single analytical frame combining policy-content and policy-context factors, and where both were considered they were typically treated as additive rather than configurational (Ejelöv & Nilsson, 2020; Lockwood, 2013). Third, the relationship between backlash and policy failure was asserted more often than examined, with backlash and failure often treated as a situation when "something went wrong" (Bovens & Hart, 2016; McConnell, 2010b, 2010a, 2015). Fourth, the practitioner perspective on what contestation is a problem of, and what can be done about it, was largely absent from the literature despite its centrality for policy learning (Dunlop & Radaelli, 2022; Hoppe, 2010).

The thesis addressed those gaps through a multi-staged medium-N comparative research design built around four interlocking papers sharing a common empirical sample of hard climate policies in OECD countries between 2009 and 2022. Chapter 3 mapped the prevalence and patterns of post-adoption public responses across 50 policy packages in 21 jurisdictions (Anisimova & Patterson, 2024). Chapter 4 identified the configurations of conditions under which contestation arises, drawing on fuzzy-set Qualitative Comparative Analysis (fsQCA) (Ragin, 2009; Schneider & Wagemann, 2012) of 27 cases across 16 jurisdictions (Anisimova & Patterson, 2025). Chapter 5 examined the relationship between backlash and policy failure across the six confirmed backlash cases, using an adapted version of McConnell's (McConnell, 2010a, 2015) policy success/failure framework. Chapter 6 elicited how policy experts

problematize conditions of contestation and what action points they propose, drawing on structured interviews with 62 experts approached as "problem brokers" (Knaggård, 2015).

The chapters are not parallel stand-alone studies but sequential analytical steps on a coherent empirical base. The prevalence analysis (Chapter 3) furnished the population on which the configurational analysis (Chapter 4) operates; the six backlash cases identified in Chapter 3 formed the comparative material for the policy failure analysis (Chapter 5); and the structured interview corpus assembled for Chapter 4 was read through an analytical lens of problematization in Chapter 6. This chapter brings the contributions together: Section 7.2 presents key findings as responses to the four research sub-questions formulated in Section 1.4. Section 7.3 distils three overall contributions of this thesis. Section 7.4 sets out broader implications that the findings prompt without being directly demonstrated by them. Section 7.5 reflects on limitations and how they shape the interpretation of the work. Section 7.6 outlines key avenues for future research.

7.2 SYNTHESIS OF FINDINGS

This section presents the key findings as direct responses to the four research sub-questions. The findings are reported with the level of confidence the underlying material warrants; observations that go beyond what the empirical work directly demonstrates are reserved for Section 7.4.

7.2.1 RQ1: How prevalent is public backlash to adopted hard climate policies in OECD countries?

Chapter 3 established the empirical baseline of the thesis. Drawing on systematic qualitative media content analysis of 50 hard climate policy packages across 21 OECD member countries between 2009 and 2022, the chapter developed a four-fold typology of public responses based on the dimensions of disapproval (sentiment) and mobilization (behavior), distinguishing acceptance, support, non-acceptance, and backlash (Anisimova & Patterson, 2024). Applying this typology, public contestation was the exception rather than the rule in the sample: acceptance was the most frequent response (78% of cases), active support occurred in 6%, non-acceptance in 4%, and backlash in 12%.

Where backlash did occur, it clustered among carbon pricing/taxation policies and in the latter half of the study period, suggesting that increasing ambition and partisan dynamics may be reshaping the contestation landscape over time. Importantly, no clear link emerged between specific policy attributes (e.g., instrument type, gradualism, redistributive provisions, country) and the occurrence of backlash. This is itself a substantive finding: it points away from purely design-based explanations of contestation and toward configurational analysis, the move undertaken in Chapter 4.

7.2.2 RQ2: Under which conditions does public backlash to hard climate policies arise at the post-adoption stage?

Chapter 4 moved from prevalence of public backlash to conditions under which it is likely to arise. Using fsQCA on a calibrated sub-sample of 27 cases, the chapter analyzed five conditions: socio-political polarization, climate change concern, policy demandingness, policy unfairness, and information provision, and demonstrated that no single condition was sufficient or necessary on its own (Chapter 4). Contestation was produced by combinations of conditions, with the combination of demandingness and unfairness emerging as the core configurational explanation, present in every solution pathway in both the conservative and intermediate solutions. The demandingness-unfairness core combined in different cases with socio-political polarization, lack of climate change concern, or absence of information provision were found to be conducive to public backlash.

Two implications follow for how the determinants of post-adoption contestation are to be understood. First, ex-ante findings on the importance of perceived burden and fairness for stated policy support (Carattini et al., 2018; Maestre-Andrés et al., 2019) receive ex-post comparative validation, which the survey-based literature had long suggested but could not confirm under real-world post-adoption conditions. Second, the conditions identified do not operate additively (as dominant regression-based work has tended to assume (for example Dechezleprêtre et al., 2022)) but conjuncturally: the same design feature produces different outcomes in different contexts and the same contextual factor produces different outcomes for different designs (Ragin, 2009; Schneider & Wagemann, 2012). This makes the question "why is this policy contested?" one that can be posed and answered configurationally, that is, taking into account a combination of conditions spanning both policy content and policy context.

7.2.3 RQ3: When and to what extent does policy backlash lead to policy failure?

Chapter 5 examined the ambiguous relationship between policy failure and backlash. Drawing on a structured comparative case analysis of the six backlash cases identified in Chapter 3 (i.e., Australia's Carbon Pricing Mechanism, Canada's Federal Carbon Pricing System, France's Carbon Charge Component, Mexico's Carbon Tax, Germany's Coal Exit Law, and the United States' Affordable Clean Energy Rule) and using an adapted version of McConnell's (2010a, 2015) policy success/failure framework, the chapter documented substantial variation in both the degree and form of failure across cases. Two cases ended in outright policy failure (Australia, USA), three in conflicted success/conflicted failure (Canada, France, Mexico), and one in tolerable failure / resilient success (Germany).

The substantive insight is that backlash and policy failure are not synonymous. The cases that landed further from the failure end of the spectrum were not those that experienced the least intense contestation but those that adapted most effectively in response to it, for

example, through revised rebate forms in Canada, scheduled review provisions and structural transition support in Germany, and corrective measures in France and Mexico. Chapter 5 therefore positions policy adaptability (i.e., the capacity of a policy to adapt to changing circumstances while delivering on policy goals), as a central determinant of policy outcomes in the face of backlash. This finding provides comparative empirical evidence for arguments developed in the policy durability and policy feedback traditions (Jordan & Moore, 2020, 2023; Lockwood, 2013; Patashnik, 2019, 2023).

7.2.4 RQ4: How do policy experts problematize conditions of public backlash, and what action points do they see as needed to ensure policy viability?

Chapter 6 foregrounded policy implications. Drawing on thematic analysis of structured interviews with 62 policy experts across 16 OECD jurisdictions, and treating experts as "problem brokers" (Knaggård, 2015) who interpret public contestation rather than prescribe technical solutions, the chapter focused on problematized conditions (the underlying tensions experts identify) and policy action points (targeted, problem-oriented guidance taking the form of either direct intervention or strategic orientation). Five problems were articulated from the five conditions: policy unaffordability (from demandingness), ineffective redistribution (from unfairness), policy misinterpretation (from lack of information provision), partisan capture (from socio-political polarization), and policy legitimacy deficit (from lack of climate concern). Each was associated with a recurring repertoire of action points.

Across the five problems, the analysis surfaced a regularity worth highlighting. The location of the problem (be it policy design or policy context) structures the mode of action available. Problems located in design (unaffordability, ineffective redistribution, misinterpretation) admit direct intervention; problems located in context (partisan capture, policy legitimacy deficit) admit primarily strategic orientation. Diagnosing what specifically about backlash is the problem in a given case is therefore the prerequisite for any well-targeted policy response, and it is what the action points are organized around. The expert reflections converge on a recognizably common repertoire: conditional escalation tied to evolving contextual parameters (Thalmann & Baranzini, 2006b); layering, bundling, and sequencing of policy architectures (Howlett et al., 2018; Pahle et al., 2018); visible and effective redistribution channels (Mildenberger et al., 2022); earmarking of revenues for thematically consistent purposes (Baranzini & Carattini, 2017; Kallbekken & Aasen, 2010); eco-social integration of climate and welfare policies (P. Bergquist et al., 2020); attention to the timing, content, and form of communication (de Vries, 2020); meaningful public engagement (Muradova et al., 2020) and longer-horizon work on climate-related identity and education (Bliuc et al., 2015; Poortinga et al., 2019).

7.3 CONTRIBUTIONS

The thesis makes three key contributions: a theoretical, an empirical, and a policy-related contribution.

7.3.1 Theoretical contribution

Advancing understanding of public backlash as a distinct phenomenon and with complex implications for policymaking

The thesis makes an important theoretical contribution by advancing the existing understanding of public backlash as a specific form of contestation distinct from other types of public responses to hard climate policies. Backlash is identified to be a product of a configurational interplay between specific policy content and policy context conditions. Chapter 4 demonstrates that the conditions producing public backlash operate configurationally and that demandingness and unfairness form a core combination joined in different cases by polarization, lack of climate concern, or lack of information provision. Public acceptance research has typically estimated the independent effects of design features (revenue use, cost magnitude) and contextual factors (political trust, climate concern) on individual-level support, treating these as separable variables in regression frameworks (van den Bergh et al., 2021; Dechezleprêtre et al., 2022; Maestre-Andrés et al., 2019). This approach provides a limited perspective on backlash as it does not capture the conjunctural logic by which the same design feature produces different outcomes in different contexts.

Furthermore, the complex nature of public backlash is found to be manifested not only through detrimental effects but also through productive impacts on climate policymaking. More specifically, chapters 5 and 6 demonstrate how backlash can ensure policy viability through activating much needed policy adaptability (the capacity to keep delivering on policy goals while the policy itself responds to changing circumstances). This addresses the conceptual conflation between policy durability and policy viability. The policy durability literature has tended to treat post-adoption resilience as the central property of well-designed policy (Jordan & Moore, 2020, 2023; Patashnik, 2008), implicitly associating policy success with persistence in original form. Durability so defined privileges resilience: the ability to return to an earlier equilibrium after a shock (Capano & Woo, 2017, pp. 402–403). The thesis develops a different framing. Building on the long-standing contrast between resilience and robustness, that is, the capacity to perform tolerably well across a range of scenarios, including ones the policy designer did not foresee (Capano & Woo, 2017; Dryzek, 1983), the thesis argues that, for contention-prone climate policies, the relevant property is not durability through resistance but viability through adaptability. Chapter 5 develops the distinction empirically through the comparative case analysis. Chapter 6 elaborates it through the problematized-condition and action-point framework, in which design choices such as conditional escalation, sequencing, and visible redistribution are read as designed-in adapt-

ability rather than as designed-in invulnerability. The contribution is to articulate viability as analytically distinct from durability and to specify what its empirical referents look like in the climate domain.

7.3.2 Empirical contribution

Establishing a systematic medium-N evidence base on public backlash to hard climate policy

The thesis provides novel systematic medium-N evidence on public backlash to hard climate policies in OECD countries, addressing the absence of comparative empirical work flagged across the contentious climate politics and public acceptance literatures (Heyen & Wicki, 2024; Patashnik, 2019; Patterson, 2023). Through the prevalence map produced by Chapter 3, the thesis establishes a comparative empirical baseline against which subsequent claims about climate policy contestation can be assessed. The finding that backlash occurs in approximately 12% of hard climate policy cases, with milder non-acceptance in a further 4%, complements the case-based knowledge accumulated through detailed studies of high-profile episodes (e.g., Driscoll, 2023; Stokes, 2016) by situating those episodes within the broader distribution of post-adoption responses. The baseline provides a comparative reference point the field had been operating without, and it is established on a sample that does not select on the dependent variable. Additionally, the inclusion of OECD members often described as developing economies (Chile, Colombia, Costa Rica, Mexico, Turkey) — accounting for roughly 30% of the sample — also modestly addresses the over-representation of Global North cases in climate policy analysis (Heyen & Wicki, 2024; Roberts et al., 2020), though the sample remains weighted toward Global North democracies.

7.3.3 Policy-related contribution

Providing a diagnostic vocabulary and action-point repertoire for navigating post-adoption contestation

The thesis offers a helpful approach and a set of practical reference points for navigating post-adoption contestation, addressing the gap between the generic best-practice prescriptions common in policy-consultancy work (Craft & Howlett, 2013; Keele, 2019) and the contextually specific guidance practitioners actually need (Hoppe, 2010).

The first element is a diagnostic vocabulary. The typology of public responses (Chapter 3), the five conditions of contention (Chapter 4), and the five problematizations of those conditions (Chapter 6) together allow practitioners to ask of any given case: which response is this? (acceptance, support, non-acceptance, or backlash); which conditions are producing it? (and in which combination); and which underlying problem is at issue? (unaffordability, ineffective redistribution, policy misinterpretation, partisan capture, or legitimacy deficit). This vocabulary decouples the catch-all language of backlash into a more differentiated set

of diagnostic questions and links each diagnostic step to a specific analytical framework. It provides a structured way of identifying what contestation is a problem of before deciding what to do about it, a sequence the policy-design literature has long emphasized but which much policy-consultancy work lacks (Howlett et al., 2018; Knaggård, 2015).

The second element is a repertoire of action points. Chapter 6 develops policy action points as targeted, problem-oriented guidance that can take the form of either direct intervention (where the problem permits) or strategic orientation (where it does not), and matches each action point to the problem it addresses. The repertoire includes conditional escalation mechanisms tied to evolving contextual parameters; layered, bundled, and sequenced policy architectures (Howlett et al., 2018; Pahle et al., 2018); visible and effective redistribution channels (Mildenberger et al., 2022); earmarking of revenues for thematically consistent purposes (Baranzini & Carattini, 2017; Kallbekken & Aasen, 2010); eco-social integration of climate and welfare policies (Bergquist et al., 2020; Hujo, 2026); attention to the timing, content, and form of communication (Vries, 2020); meaningful participatory mechanisms (Muradova et al., 2020); and longer-horizon work on climate-related identity and education (Bliuc et al., 2015; Hornsey & Fielding, 2020; Nezi et al., 2023). The contribution is to provide policymakers with policy options structured by problem and mode of action rather than by "best practice" in the abstract.

7.4 IMPLICATIONS

Beyond the findings and contributions discussed above, the thesis prompts three broader implications, that is, observations not directly demonstrated by the empirical material but supported by reading the four empirical chapters together and engaging with the broader literature.

7.4.1 The "fear of backlash" narrative may be more politically constraining than the comparative evidence warrants

A first implication concerns the role of the fear-of-backlash narrative in contemporary climate policymaking. In the absence of comparative prevalence evidence, the most visible cases (e.g., Australia's carbon tax repeal, France's Yellow Vests) have come to dominate inferences about post-adoption contestation as a whole, contributing to what Stokes (2016), Patashnik (2019), and Patterson (2023) describe as a political climate in which anticipated risk of backlash shapes design choices ahead of any actual contestation. The findings of this thesis — an approximately 12% backlash rate in the sample, configurational rather than universal drivers, and substantial variation in backlash policy implications — suggest that the fear may exceed what the comparative evidence on OECD national hard climate policy in 2009-2022 supports. The implication is that the political space for ambitious hard climate policy may

be larger than the fear-of-backlash framing has allowed (Lockwood, 2013; Patterson et al., 2025).

This implication should be read with care. The prevalence of backlash differs across cases, instruments, and time periods. Contestation clusters in carbon pricing/taxation and in the latter half of the study period, suggesting that the conditions under which the fear-of-backlash framing is most acute are not uniform across the policy space. The thesis window also does not include the most recent post-Paris policy wave, whose contestation trajectories are still unfolding. Hence, it is important to be precise here: the evidence does not show that backlash is unimportant. It is real, it is consequential where it occurs, and the backlash cases illustrate this directly. What the evidence supports is the more bounded statement that, across this sample, backlash is not the modal outcome and its consequences vary. The implication is therefore not that public backlash should be discounted, but that the proportionality of the response to its anticipated occurrence is worth re-examining in light of the comparative evidence.

7.4.2 Policy adaptability may help ensure viability of backlash-prone climate policy

Another implication concerns the property that ambitious climate policy should be designed for. The findings of Chapter 5, supported by the practitioner reflections in Chapter 6, pinpoint an important criterion which can help enhance viability of contention-prone climate policy – a policy capacity to adapt. The cases that continued delivering on their stated goals were not those that resisted change but those that adapted: for example, Canada through more visible redistribution, Germany through structural transition support and scheduled review, France and Mexico through corrective adjustments. Adaptability in these cases was not the failure of durability, it was the means through which the policy's functional viability was preserved. The implication, embedded in the broader literatures on policy robustness (Capano & Woo, 2017; Dryzek, 1983) and policy adaptability under turbulence (Ansell & Trondal, 2018; Howlett & Kemmerling, 2017), is that the appropriate property of climate policy in the post-adoption phase is viability through adaptation rather than durability through resilience.

This implication aligns directionally with recent calls for adaptive, improvisational, and experimental climate governance (Paterson et al., 2026) and reframes what success looks like in this domain. The empirical material does not allow the thesis to claim that viability is always preferable to durability: there might be policy domains where durability remains the right criterion, and the conditions under which one property should be privileged over the other is itself a question to be addressed. What the thesis does support is the more balanced statement that, for the contention-prone hard climate policies it studies, the viability frame organizes the design conversation more usefully than the durability frame.

7.5 LIMITATIONS

Three limitations warrant particular attention. They are boundary conditions that shape how the findings should be read and that point at the most promising directions for follow-on work (Section 7.6).

7.5.1 Conceptual choices

Several conceptual choices in the thesis are defensible but contestable. The first choice concerns how backlash itself is conceptualized and detected. Chapter 3 operationalizes public response along two dimensions (i.e., disapproval (sentiment) and mobilization (behavior)) each scored on an ordinal 0–3 scale, and classifies a case as backlash only when both dimensions cross a conservative threshold (≥2), with the underlying signal read off national-scope newspaper coverage treated as a "master arena" of public response. The finding that backlash occurred in roughly 12% of cases should therefore be read as the prevalence of backlash-as-operationalized-here, not as a threshold-free property of the sample.

A second set of choices concerns the five conditions analyzed in Chapter 4: policy demandingness, policy unfairness, socio-political polarization, climate change concern, and information provision. These were selected on theoretical grounds and then narrowed to conditions that could be calibrated comparably across the full case set; several plausible candidates that surfaced during case familiarization (e.g., economic grievance, prior contestation, disaster experience, cost visibility) were considered and ultimately set aside, partly because they could not be measured consistently across jurisdictions and partly to keep the configurational space tractable for fsQCA. A different or larger condition set could have produced additional pathways, which presents a promising avenue for future research.

A third choice concerns how the consequences of backlash are assessed in Chapter 5. The thesis evaluates what backlash does to a policy through the lens of policy failure rather than, for instance, climate effectiveness: it adapts McConnell's policy success/failure framework and scores each case across the process, program, and politics dimensions rather than ranking cases by emissions abated or progress toward a mitigation target. The implication is that environmental performance enters only as one component of the program dimension, not as the main measure of outcome. For instance, Australia's carbon pricing package illustrates the stakes of this choice: it delivered real short-term emissions reductions before repeal, yet registers as outright failure here precisely because the framework foregrounds a policy legitimacy and viability over its interrupted environmental performance.

The bottom line is not that the choices are arbitrary — each is defended and explained in its respective chapter — but that the thesis conclusions about the prevalence, drivers, and implications of backlash hold relative to them, and that work adopting a different threshold,

condition set, or an outcome construct should be expected to refine the specific findings reported here.

7.5.2 Empirical scope

The thesis focuses exclusively on hard climate policies adopted at the national level in OECD member countries between 2009 and 2022. Each of these boundaries is substantively defensible but each excludes other pieces of the puzzle. Sub-national instruments (e.g., the state, provincial, regional, and municipal policies) important to ambitious climate action, are not covered, even though sub-national contestation dynamics may differ from national-level dynamics in instructive ways (Marquardt et al., 2022). Furthermore, soft instruments (information campaigns, voluntary measures, subsidies) are excluded, although their contestation dynamics could provide informative contrast cases. Non-OECD jurisdictions are excluded entirely, and even within the OECD the sample remains dominated by Global North democracies despite including Mexico, Chile, Colombia, Costa Rica, and Turkey. The 2009–2022 window misses the most recent post-Paris policy wave (the EU's Green Deal Industrial Plan, the US Inflation Reduction Act, ongoing carbon pricing reforms), whose contestation trajectories are still unfolding.

The findings should therefore be read as describing post-adoption contestation in OECD national hard climate policy during this specific window, that is, neither generalized uncritically nor dismissed for failing to address what was not in scope. The boundaries also clarify the conditions under which the framework applies: where the political, institutional, and economic context resembles that of the sampled jurisdictions, the framework should hold; where it does not, the framework provides a starting point for adaptation.

7.5.3 Evidence base

The thesis relies on three principal kinds of evidence: newspaper reporting (centrally for Chapter 3), structured expert interviews (centrally for Chapters 4, 5, and 6), and secondary documentation (across all four empirical chapters). Each carries specific limitations. Newspaper reporting may under-represent contestation that does not attract media attention (especially sub-national or intra-sectoral contention) and may over-represent contestation that fits prevailing media narratives. Structured expert interviews capture practitioner interpretations of public perceptions rather than those perceptions directly: what Chapters 4-6 report is what experts believe mass publics perceive, which is itself an interpretive lens (Knaggård, 2015).

Three to six interviews per country, even with structured cross-national comparability, presents some limitations for case-specific claims about national dynamics, although it is sufficient for identifying recurring patterns across the sample. Secondary documentation is uneven across cases, with some jurisdictions far better documented than others. Consequently, the observed differences between cases may partly reflect variations in data availability

rather than substantive differences in policy or practice. The findings should therefore be interpreted as indicative rather than definitive, particularly for less-documented jurisdictions (e.g., Turkey, Japan, Poland).

7.6 AVENUES FOR FUTURE RESEARCH

Four avenues stand out as both necessary next steps for the study of public backlash to hard climate policy and as productive extensions of the analytical premise developed in the thesis. Each addresses a limitation identified in Section 7.5 or pursues a direction the present design could not.

7.6.1 Comparative extension to non-OECD jurisdictions

The first avenue is the comparative extension to jurisdictions outside the OECD, particularly major emerging economies (Brazil, India, Indonesia, South Africa) and lower-income jurisdictions where climate adaptation may be politically more pressing than mitigation. Climate policymaking under different state capacities, democratic institutions, and political economies is likely to operate under different constraints and to generate different contestation dynamics (Roberts et al., 2020). This direction is necessary because the centrality of the demandingness-unfairness combination identified in Chapter 4 may be specific to OECD-style political economies and cannot be claimed as a general explanatory configuration without testing in different contexts. It would help the field move beyond the persistent Global North bias in climate policy analysis (Heyen & Wicki, 2024) and would accomplish the joint task of testing the framework's external validity and enriching it with conditions more salient in different settings (political regimes, informal sector dynamics, extractive economy dependencies, donor-driven policy adoption). While the conceptual and methodological basis developed in the thesis transfers reasonably to such cases, the empirical findings may vary.

7.6.2 Sub-national extension

The second avenue is the sub-national extension. State, provincial, regional, and municipal climate policy is increasingly central to climate governance, and contestation at sub-national level may differ substantively from national-level dynamics: sub-national jurisdictions can be politically more homogeneous (potentially reducing contestation) but more directly exposed to specific community concerns (potentially amplifying it), and they often operate under tighter resource constraints that intensify affordability problems (Bulkeley & Betsill, 2013; Marquardt et al., 2022). This direction is necessary because hard climate policy is also implemented at sub-national and local levels, and the national level analysis might not attend accurately to those dynamics. It would help identify the conditions under which the configurational framework holds at sub-national scale and which conditions are scale-specific. It would accomplish a useful methodological objective: testing whether the framework

operates as a stable explanatory structure across scales, or whether contestation operates through different conjunctions at different levels of government.

7.6.3 Longitudinal extension for the empirical study of viability and most recent trends

The third avenue is the longitudinal extension. The 2009-2022 window captures contestation trajectories over a relatively short policy timeframe, and many of the cases studied in Chapters 5 and 6 are still unfolding. Tracking the long-term trajectories of contested cases would allow the adaptability-viability link to be tested beyond the temporal boundaries of the present design (Jordan & Moore, 2023; Patashnik, 2023). This direction is necessary because the distinction between viability through adaptation and durability through persistence becomes visible only over time: a policy that has been adapted within five years may look different across fifteen, and the difference between adaptive functioning and persistence-in-form (i.e., resilience) cannot be evaluated within short windows. It would help clarify whether the cases identified as adaptive in Chapter 6 settle into stable post-adaptation forms and whether adaptive corrections preserve original policy goals or quietly displace them. It would accomplish the empirical specification of viability as a property of policy trajectories rather than of single post-adoption episodes, that is, moving the viability frame from a conceptual proposal toward a testable empirical claim.

Furthermore, extending the policy sample beyond 2022 is important for both empirical and substantive reasons. The most recent period has been marked by significant shifts in climate politics (Paterson et al., 2026), including heightened political contestation (Abrams et al., 2022), growing concerns about the distributional consequences of decarbonization (Bosetti et al., 2025), energy security challenges following geopolitical shocks (Fang et al., 2023), and the rise of electoral backlash against certain climate measures (Stutzmann 2025; Pepin-Proulx 2025). As a result, patterns observed between 2009 and 2022 may not fully capture contemporary dynamics. Expanding the timeline toward the present would allow assessment of whether earlier trends persist, weaken, or reverse, thereby strengthening the study's relevance and more directly connecting its findings to the evolving political context.

7.6.4 Integration of citizen-perception data

The fourth avenue is the systematic integration of citizen-perception data with expert-mediated evidence. The thesis worked with expert interpretations of public contestation rather than with public perceptions directly. Pairing expert problematizations with citizen-level survey, deliberative-forum, or ethnographic data would allow higher-level comparison of expert and public framings (Muradova et al., 2020) to test the findings of Chapter 6 and address the evidence-base limitation flagged in Section 7.5.3. This direction is necessary because the relationship between expert and citizen problematizations is itself a substantive question for policy learning research (Dunlop & Radaelli, 2022), especially when they diverge, as the divergence is itself analytically informative. It would help specify where expert problemati-

zations capture publicly held concerns accurately and where they reflect professional culture rather than public sentiment.

These four avenues do not exhaust the directions the thesis opens. The relationship between contestation and policy feedback (i.e., how specific contestation episodes reshape the political opportunity structure within which subsequent policies are made) is hinted at in the thesis but not systematically studied. The disaggregation of the five conditions into their sub-dimensions (e.g., distinguishing socio-economic, ideological, and affective polarization, or the content, form, and timing of information provision) would refine the configurational framework further. And the question of how policy adaptation actually occurs (e.g., through which institutional, electoral, deliberative, or administrative channels) would deepen the mechanism-side of the adaptability finding from Chapter 6. Together, these directions trace a research agenda that the thesis hopes to have made possible.

To conclude, climate change is the long emergency of our time, and the policies needed to address it are likely to remain politically demanding. The work of designing and implementing such policies will not become easier as the climatic stakes rise. This thesis posits that contestation should be expected, not avoided; diagnosed, not catastrophized; and responded to with action calibrated to its specific configurational conditions. This might be not a comfortable message for either climate optimists who would prefer to imagine a politically frictionless transition or for climate pessimists who would prefer to treat backlash as proof that hard policy cannot work. This thesis aspired to contribute to a better understanding of backlash and its implications by offering an empirical baseline, a configurational explanation, an evaluative framework, a repertoire of action points, and a reframing of policy success around adaptive viability. Whether and how these advances prove useful in practice remains to be seen; by placing them on the table, I hope to contribute to an ongoing conversation that continues to inspire both further reflection and meaningful action.

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Appendices

(per Chapter)

Chapter III.

Appendix 3.1: Categorization of Policy Instrument Types

We re-categorize the policy instrument types from the Climate Policy Database (CPD 2023) to systematically identify and consolidate the relevant instrument types for our study (Table 3.A1.1, A1.2, A1.3). The Climate Policy Database draws together data from several other prominent datasets and reports including the Grantham Institute's Climate Change Laws of the World, the International Energy Agency climate policy database, and the Sabin Centre for Climate Change Law databases. We sort this database based on our case selection criteria: OECD member country, relevant hard policy instruments, sectors of interest (i.e., general frameworks, electricity and heat), study period by date of policy decision (i.e., 2009-2022), and mitigation policy objective.

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CPD 2023 Climate Policy Database Codebook, version March 2023. NewClimate Institute, Wageningen University and Research & PBL Netherlands Environmental Assessment Agency. URL: https://climatepolicydatabase.org/sites/default/files/2023-05/CPDB Codebook v1.2.pdf

Table 3.A1.1: Hard policy instrument types selected from the Climate Policy Database.

Policy category	Instrument types included	Explanation
Regulation	• Regulatory instruments • Formal and legally binding targets or strategy • Codes and standards (e.g., sectors, products) • Other mandatory obligations	Policies that control or regulate a process or activity enforced by an authority, comprising policies directly targeted towards such intervention rather than frameworks for taxation/ pricing and phase-outs.
Prices and taxation	• CO_2 and energy taxes • Allowances and credits • Emissions trading • Other charges and tariffs	Policies that levy a tax or set a price (including other financial allowances and credits) to control or limit greenhouse gas emissions.
Phase-outs	• Removal of fossil fuel subsidies • Phase-out of fossil fuel production • Technology phase-outs	Policies that specifically aim to phase-out fossil fuel production and use, or achieve other forms of regime change such as regarding electricity production (e.g., moratorium on nuclear energy production).

Table 3.A1.2: Categorization of policy instrument types from the Climate Policy Database.

Hard policy category	Instrument types distinguished for our study	Instrument types in Climate Policy Database (see Table 3.A1.3)
Regulation	• Regulatory instruments	• Regulatory Instruments
	• Formal and legally binding targets or strategy	• Formal & legally binding climate strategy • Formal & legally binding energy efficiency target • Formal & legally binding GHG reduction target • Formal & legally binding renewable energy target
	• Codes and standards (e.g., sectors, products)	• Codes and standards • Building codes and standards • Industrial air pollution standards • Product standards • Sectoral standards • Vehicle air pollution standards • Vehicle fuel-economy and emissions standards
	• Other mandatory obligations	• Grid access and priority for renewables* • Monitoring* • Obligation schemes* • Other mandatory requirements* • Auditing*
Prices and taxation	• CO_2 and energy taxes	• CO2 taxes • Energy and other taxes
	• Allowances and credits	• GHG emission reduction crediting and offsetting mechanism • GHG emissions allowances • Green certificates • White certificates
	• Emissions trading	• Market-based instruments* [where applicable]

Table 3.A1.2: Categorization of policy instrument types from the Climate Policy Database. (*continued*)

Hard policy category	Instrument types distinguished for our study	Instrument types in Climate Policy Database (see Table 3.A1.3)
	• Other charges and tariffs	• User charges • Feed-in tariffs or premiums*
Phase-outs[2]	• Removal of fossil fuel subsidies	• Removal of fossil fuel subsidies
	• Phase-out of fossil fuel production • Technology phase-outs	*Re-categorized from other instrument types where relevant*

*Denotes ambiguous instrument types which we included only when they were clearly tied to other co-present hard policy instrument types and the policy name and description suggested it was relevant to do so. This was performed at the subsequent interpretive screening stage.

Table 3.A1.3: Policy instrument categories labeled (hard, intermediate, soft) from full list of policy instrument types in the Climate Policy Database (authors' judgment). NB: In selecting hard policy instruments for Table 3.A1.2, we first select relevant instrument types at the most disaggregated level, and then only select the instrument type at the next highest level if all sub-instruments are included (see bolded).

Policy instrument tree used by Climate Policy Database			Instrument type		
Level 1	**Level 2**	**Level 3**	**Hard**	**Intermediate**	**Soft**
Barrier removal			X	X	
	Grid access and priority for renewables*		X		
	Net metering			X	
	Removal of fossil fuel subsidies		X		
	Removal of split incentives (landlord tenant problems)			X	
Climate strategy			X	X	
	Coordinating body for climate strategy			X	
	Formal & legally binding climate strategy		X		
	Political & non-binding climate strategy			X	
Economic instruments			X	X	X
	Direct investment			X	
		Funds to sub-national governments		X	
		Infrastructure investments		X	
		Procurement rules		X	
		RD&D funding			X
	Fiscal or financial incentives		X	X	X
		CO2 taxes	X		
		Energy and other taxes	X		
		Feed-in tariffs or premiums	X		
		Grants and subsidies			X

Table 3.A1.3: Policy instrument categories labeled (hard, intermediate, soft) from full list of policy instrument types in the Climate Policy Database (authors' judgment). NB: In selecting hard policy instruments for Table 3.A1.2, we first select relevant instrument types at the most disaggregated level, and then only select the instrument type at the next highest level if all sub-instruments are included (see bolded). (*continued*)

Policy instrument tree used by Climate Policy Database			Instrument type		
		Loans		X	
		Retirement premium		X	
		Tax relief		X	
		Tendering schemes		X	
		User charges	X		
	Market-based instruments*		X	X	
		GHG emission reduction crediting and offsetting mechanism	X	X	
		GHG emissions allowances	X	X	
		Green certificates	X	X	
		White certificates	X	X	
Information and education					X
	Advice or aid in implementation				X
	Information provision				X
	Performance label				X
		Comparison label			X
		Endorsement label			X
	Professional training and qualification				X
Policy support				X	
	Institutional creation			X	
	Strategic planning			X	
Regulatory Instruments			X		

Table 3.A1.3: Policy instrument categories labeled (hard, intermediate, soft) from full list of policy instrument types in the Climate Policy Database (authors' judgment). NB: In selecting hard policy instruments for Table 3.A1.2, we first select relevant instrument types at the most disaggregated level, and then only select the instrument type at the next highest level if all sub-instruments are included (see bolded). (*continued*)

Policy instrument tree used by Climate Policy Database			Instrument type		
	Auditing*		X		
	Codes and standards		X		
		Building codes and standards	X		
		Industrial air pollution standards	X		
		Product standards	X		
		Sectoral standards	X		
		Vehicle air pollution standards	X		
		Vehicle fuel-economy and emissions standards	X		
	Monitoring*		X		
	Obligation schemes*		X		
	Other mandatory requirements*		X		
Research & Development and Deployment (RD&D)				X	X
	Demonstration project				X
	Research programme			X	X
		Technology deployment and diffusion		X	
		Technology development			X
Target			X	X	
	Energy efficiency target		X	X	
		Formal & legally binding energy efficiency target	X		

Table 3.A1.3: Policy instrument categories labeled (hard, intermediate, soft) from full list of policy instrument types in the Climate Policy Database (authors' judgment). NB: In selecting hard policy instruments for Table 3.A1.2, we first select relevant instrument types at the most disaggregated level, and then only select the instrument type at the next highest level if all sub-instruments are included (see bolded). (*continued*)

Policy instrument tree used by Climate Policy Database			Instrument type		
		Political & non-binding energy efficiency target		X	
	GHG reduction target		X	X	
		Formal & legally binding GHG reduction target	X		
		Political & non-binding GHG reduction target		X	
	Renewable energy target		X	X	
		Formal and legally binding renewable energy target	X		
		Political and non-binding renewable energy target		X	
Voluntary approaches				X	X
	Negotiated agreements (public-private sector)			X	
	Public voluntary schemes				X
	Unilateral commitments (private sector)				X

*Denotes ambiguous instrument types which we included only when they were clearly tied to other co-present hard policy instrument types and the policy name and description suggested it was relevant to do so. This was performed at the subsequent interpretive screening stage

APPENDIX 3.2: CASE SELECTION PROCEDURE

The case selection procedure, as explained in Section 3.1 Case Sampling is summarized below.

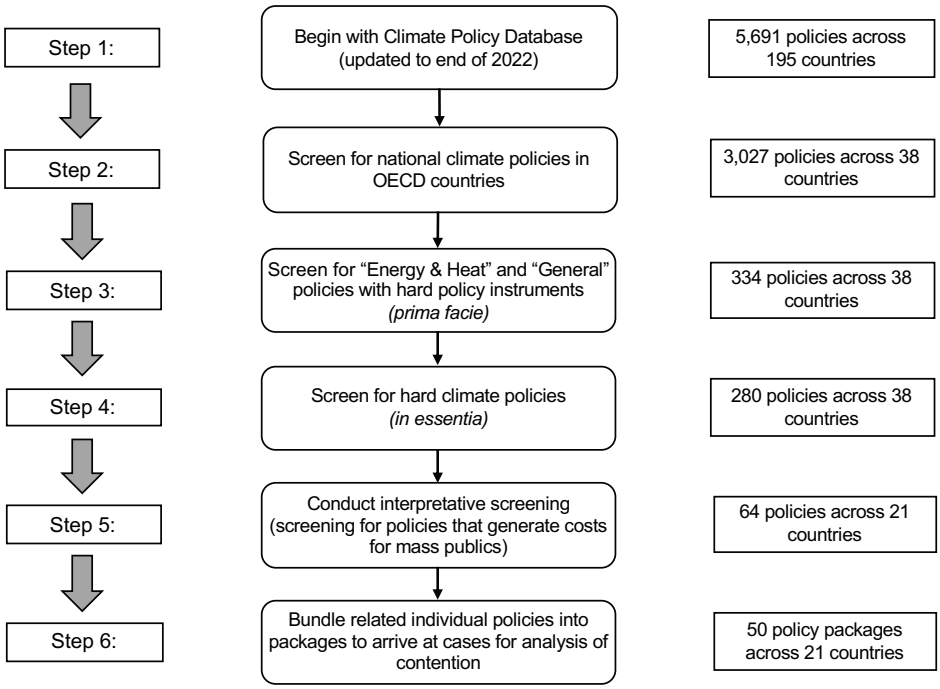


Figure 3.A2.1: Case selection procedure.

APPENDIX 3.3: CASE SAMPLE

Table 3.A3.1 lists the individual policies resulting from the case selection procedure described in Section 3.1 Case Sampling and in Appendix 3.2 (i.e., 64 policies at Step 5 of Figure 3.A2.1), and how they were bundled into policy packages, where relevant, to arrive at the final sample (i.e., 50 cases at Step 6 of Figure 3.A2.1).

Table 3.A3.1: Policy cases in the sample.

Case no.	Country	Policy no.	Policy name	Type of policy instrument (see Appendix 3.1)
1	Australia	1	*Clean Energy Act Australia (2011)*	Formal & legally binding climate strategy, CO2 taxes
		2	*Carbon Pricing Mechanism Australia (2012)*	CO2 taxes
		3	*Carbon Pollution Reduction Scheme (CPRS) - Emissions Trading Scheme Australia (2012)*	GHG emissions allowances
		4	*Clean Energy Future Plan Australia (2012)*	CO2 taxes, Institutional creation, Strategic planning, Research & Development and Deployment (RD&D), Technology deployment and diffusion
2	Australia	5	*Safeguard Mechanism Australia (2016)*	Regulatory Instruments, Other mandatory requirements
3	Austria	6	*Energy efficiency Act Austria (2014)*	Target, Energy efficiency target, Formal & legally binding energy efficiency target
4	Canada	7	*Fuel charge Canada (2019)*	Fiscal or financial incentives, Energy and other taxes
		8	*Federal Greenhouse Gas Offset System Canada (2020)*	Market-based instruments, GHG emission reduction crediting and offsetting mechanism
		9	*Greenhouse Gas Pollution Pricing Act Canada (2018)*	CO2 taxes, GHG emission reduction crediting and offsetting mechanism, Energy and other taxes
		10	*Federal Carbon Pricing Approach and Backstop System Canada (2017)*	CO2 taxes
5	Canada	11	*Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations Canada (2012)*	Sectoral standards

Table 3.A3.1: Policy cases in the sample. (*continued*)

Case no.	Country	Policy no.	Policy name	Type of policy instrument (see Appendix 3.1)
		12	*Regulations Amending the Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations: SOR Canada (2018)*	Regulatory Instruments, Codes and standards, Sectoral standards
6	Canada	13	*Regulations Limiting Carbon Dioxide Emissions from Natural Gas-fired Generation of Electricity (SOR/2018-261) Canada (2019)*	Regulatory Instruments, Codes and standards, Product standards
7	Switzerland	14	*CO2 Compensation Duty for Importers of Fossil Motor Fuels Switzerland (2014)*	Other mandatory requirements
8	Switzerland	15	*CO2 Act Switzerland (2013)*	Target, GHG reduction target, Formal & legally binding GHG reduction target
9	Chile	16	*Coal power phase-out plans Chile (2021)*	Target, Regulatory Instruments, Other mandatory requirements
		17	*Bill on the prohibition of coal-fired thermoelectric plants Chile (2021)*	Regulatory Instruments, Codes and standards, Sectoral standards
10	Chile	18	*Carbon Tax Chile (2014)*	Fiscal or financial incentives, CO2 taxes
11	Colombia	19	*Law 1819 creating the National Carbon Tax Colombia (2016)*	Economic instruments, Fiscal or financial incentives, CO2 taxes
12	Colombia	20	*Resolution 40715/2019: Wholesale Energy Market with RES*	Regulatory Instruments, Obligation schemes
13	Costa Rica	21	*Decree No. 41578 extending the national moratorium on oil exploration and exploitation Costa Rica (2019)*	Fiscal or financial incentives, User charges
14	Germany	22	*Fuel Emissions Trading Act (BEHG) Germany (2019)*	Economic instruments, Market-based instruments, GHG emissions allowances
15	Germany	23	*Greenhouse Gas Reduction Quota Germany (2015)*	Other mandatory requirements

Table 3.A3.1: Policy cases in the sample. (*continued*)

Case no.	Country	Policy no.	Policy name	Type of policy instrument (see Appendix 3.1)
16	Germany	24	*German Coal Exit Law (Kohleausstiegsgesetz) Germany (2020)*	Fiscal or financial incentives, Tendering schemes, Regulatory Instruments, Other mandatory requirements
17	Denmark	25	*Tax Reform 2.0 Denmark (2009)*	Fiscal or financial incentives, Energy and other taxes
18	Spain	26	*Royal Decree Law 15/2012 on Tax Policy Aimed at Energy Sustainability Spain (2013)*	Energy and other taxes
19	Spain	27	*Royal Decree 1565/2010 on the New Tariff Regulation for the Production of Photovoltaic Electrical Energy Spain (2010)*	Feed-in tariffs or premiums, Regulatory Instruments
20	France	28	*Excise Tax on Energy Products France (2011)*	Energy and other taxes
21	France	29	*Excise Tax on Final Electricity Consumption France (2010)*	Energy and other taxes
22	France	30	*Carbon Charge Component France (2014)*	CO2 taxes
		31	*Law on Energy Transition for Green Growth (Energy Transition Law) France (2015)*	Infrastructure investments, CO2 taxes, Retirement premium, Building codes and standards, Other mandatory requirements, Energy efficiency target, Formal & legally binding energy efficiency target, GHG reduction target, Formal & legally binding GHG reduction target, Renewable energy target, Formal & legally binding renewable energy target
23	France	32	*Law on the End of Exploration and Exploitation of Hydrocarbons and Diverse Dispositions Related to Energy and the Environment France (2017)*	Strategic planning, Regulatory Instruments
24	United Kingdom	33	*Energy Act United Kingdom (2011)*	Fiscal or financial incentives, Regulatory Instruments

Table 3.A3.1: Policy cases in the sample. (*continued*)

Case no.	Country	Policy no.	Policy name	Type of policy instrument (see Appendix 3.1)
25	United Kingdom	34	*Carbon Price Floor United Kingdom (2013)*	CO2 taxes
26	United Kingdom	35	*Finance Act United Kingdom (2011)*	CO2 taxes
27	United Kingdom	36	*The Greenhouse Gas Emissions Trading Scheme Order United Kingdom (2020)*	Economic instruments, Market-based instruments, GHG emissions allowances
28	United Kingdom	37	*Finance Act United Kingdom (2020)*	Economic instruments, CO2 taxes, Energy and other taxes
29	United Kingdom	38	*Energy Act United Kingdom (2013)*	Infrastructure investments, Fiscal or financial incentives, CO2 taxes
30	Ireland	39	*Finance Act 1992 – as amended by Finance Act (No. 1) of 2013 Ireland (2013)*	Fiscal or financial incentives, Energy and other taxes
31	Italy	40	*Taxing energy use Italy (2019)*	Energy and other taxes
32	Italy	41	*Abrogation of the legal regime applying to nuclear energy production Italy (2011)*	Regulatory Instruments
33	Japan	42	*Tax for Climate Change Mitigation Japan (2012)*	CO2 taxes
		43	*Act Partially Amending the Law on Special Tax Measures (Tax Reform Act) Japan (2012)*	CO2 taxes, Energy and other taxes, Tax relief
34	Japan	44	*Act on Purchase of Renewable Energy Sourced Electricity by Electric Utilities (Law No. 108 of 2011) Japan (2012)*	Grid access and priority for renewables, Net metering, Feed-in tariffs or premiums, Institutional creation, Obligation schemes
35	Japan	45	*Thermal power plant emissions guidelines Japan (2013)*	Sectoral standards
36	Republic of Korea	46	*Transportation-Energy-Environment Tax Republic of Korea (2015)*	Energy and other taxes
37	Republic of Korea	47	*Emissions Trading Scheme Republic of Korea (2015)*	Market-based instruments, GHG emission reduction crediting and offsetting mechanism, GHG emissions allowances, CO2 taxes

Table 3.A3.1: Policy cases in the sample. (*continued*)

Case no.	Country	Policy no.	Policy name	Type of policy instrument (see Appendix 3.1)
		48	*Domestic Emissions Trading Pilot Scheme for Korean Industries and Power Sector Republic of Korea (2015)*	GHG emissions allowances
38	Mexico	49	*Law on the Electricity Industry Mexico (2014)*	Green certificates, Other mandatory requirements
		50	*Carbon Tax Mexico (2014)*	CO2 taxes
39	Mexico	51	*Energy Transition Law Mexico (2015)*	Green certificates, Obligation schemes, Other mandatory requirements, Target, Renewable energy target, Fiscal or financial incentives, Formal & legally binding renewable energy target
40	Mexico	52	*Guidelines establishing and issuing Clean Energy Certificates Mexico (2015)*	Green certificates
		53	*Capacity and power auctions supported by clean energy certificates Mexico (2016)*	Market-based instruments, Regulatory Instruments, Green certificates, Tendering schemes
41	Mexico	54	*Emissions Trading System Mexico (2019)*	Market-based instruments, GHG emissions allowances
		55	*Emissions Trading Scheme Pilot Project Mexico (2020)*	Market-based instruments, GHG emission reduction crediting and offsetting mechanism, GHG emissions allowances
42	Poland	56	*Energy efficiency Law Poland (2011)*	Policy support, Regulatory Instruments, Institutional creation
43	Sweden	57	*Act on Electricity certificates: Act No. 2011:1200 and Regulation on Electricity certificates – Regulation No. 2011:1480 Sweden (2011)*	Market-based instruments, Green certificates
44	Sweden	58	*Government Bill (2009/2010: 172): Nuclear Power opening the way for a generation change & Government Bill (2009/2010:173): Nuclear Power Increased Liability Sweden (2011)*	Regulatory Instruments, Codes and standards, Other mandatory requirements

Table 3.A3.1: Policy cases in the sample. (*continued*)

Case no.	Country	Policy no.	Policy name	Type of policy instrument (see Appendix 3.1)
45	Sweden	59	*An Integrated Climate and Energy Policy Sweden (2009)*	Climate strategy, Formal & legally binding climate strategy
46	Turkey	60	*Emissions Trading Scheme Turkey (2011)*	Market-based instruments
47	Turkey	61	*Electricity Consumption Tax Turkey (2019)*	Energy and other taxes
48	United States of America	62	*Clean Power Plan United States of America (2014)*	Regulatory Instruments, Sectoral standards, Target, GHG reduction target
49	United States of America	63	*Affordable Clean Energy (ACE) United States of America (2019)*	Codes and standards, Vehicle fuel-economy and emissions standards
50	United States of America	64	*Carbon Pollution Standard (CPS) United States of America (2012)*	Sectoral standards

APPENDIX 3.4: LIST OF NEWSPAPERS

The list of newspapers in Table 3.A4.1 is derived largely based on the media landscape overview conducted by the European Social Survey (ESS) European Research Infrastructure Consortium during the ESS Round 6 (version 4.0, May 2015) (ESS, 2012) and ESS Round 8 (version 2.0, April 2018) (ESS, 2018). The ESS provides comparative cross-national data on social issues and therefore can be considered a trustworthy source for identifying newspapers of quality in our study. These media landscape overviews provide a minimum of two quality daily national newspapers per country. Notably, this encompasses different political positions (i.e., left/right/center-oriented newspapers), because the primary selection criteria by the ESS is information quality and reputation.

For the countries from our sample that are not within the ESS scope (i.e., Australia, Canada, Chile, Colombia, Costa Rica, Japan, Republic of Korea, Mexico, USA), relevant newspapers were compiled through review of national media landscapes in the existing literature and in consultation with country experts. Similarly, this strategy was applied to look for two additional newspapers when necessary (following the procedure explained in section 3.2 Data Collection and Analysis).

Additionally, for the countries with several official/widely spoken languages (e.g., Switzerland, Canada, Costa Rica), the newspapers at least in two languages were selected, assuming that this will provide sufficient diversity of information (given relatively high level of political liberties and freedom of press in the countries of our sample by default).

We use newspapers as a source of data to gain insight into public contention. We assume that major public and political contention has a good chance of being reported in public interest media, since free and open media (as in most cases in the study) is particularly amenable to controversial topics. This is further bolstered by seeking at least two and sometimes four newspapers, as well as further checks on signals of contention. Using newspapers to identify mobilization is an approach commonly used in social movements literature (e.g., databases such as ACLED, and Mass Mobilization Protest Data), which is reflective of our approach that draws on insights and practices from both climate policy and social movements literatures.

We intentionally refrained from using newspapers from the extremes of political spectrum as the quality of data is likely to decrease due to political bias (possibly substantially, but in ways that cannot easily be determined). Thus, while representativeness of different political positions is certainly one criteria, so is quality and reliability. Ultimately, our view is that sticking within newspapers close to the political center is the most reliable approach to meet both these objectives.

In our view, this does not detract from the likelihood of detecting instances of public contention that are meaningful at the scale of the political community because:

1. we use multiple sources in each country to account for the fact that not everything will be reported in a single newspaper and there may be different levels of attention given in this regard,
2. we follow good practice in selecting newspapers of quality (Table 3.A4.1), and
3. the countries in our sample are advanced industrial democracies with mostly high levels of political and press freedom (e.g., as reflected in OECD inclusion, and elsewhere in measures such as V-Dem). Although a small number may teeter on the edge, we expect the main newspapers to be fully or mostly independent and will at least approximate a relative diversity of coverage, and it is also difficult to justifiably vary the procedure for individual countries without the risk of creating further sources of bias that will be then impossible to assess.

Nonetheless, we do not exclude the possibility that there could be situations where an instance of substantial public contention went unreported and was not captured in our findings as a result. Although, for the reasons outlined above, we believe that this not likely to be common.

Table 3.A4.1: List of newspapers (derived prior to beginning search).

#	Country	Newspapers of record/quality
1	Australia*	1) Sydney Morning Herald (center) 2) The Australian (right-leaning) 3) The Age (left-leaning) 4) Australian Financial Review (right-center)
2	Austria	5) Der Standard (left-leaning) 6) Die Presse (right-leaning) 7) Salzburger Nachrichten (conservative) 8) Wiener Zeitung (liberal)
3	Canada	9) Toronto Star (ENG) (centrist and center-left) 10) The Globe and Mail (ENG) (slightly right-center) 11) National Post (moderately conservative) 12) La Presse (FR) (center-left or liberal-leaning)
4	Switzerland	1. Der Tages-Anzeiger (DEU) (center/center-left) 13) Die Neue Zürcher Zeitung (DEU) (conservative) 14) Corriere del Ticino (IT) (liberal) 15) Le Temps (FR) (center)
5	Chile	16) El Mercurio (conservative) 17) La Tercera (center) 18) El Confidencial (liberal) 19) El Diario Financiero (conservative liberalism)
6	Colombia	20) El Tiempo (center-left) 21) El Espectador (center) 22) Diario Oficial (neutral) 23) El País Colombia (center)
7	Costa Rica	24) La Nación (center) 25) El Financiero (right-center) 26) The Costa Rica News (ENG) (center) 27) El Mundo Costa Rica (right-center)
8	Germany	28) Frankfurter Allgemeine Zeitung (liberal-conservative) 29) Süddeutsche Zeitung (liberal-left) 30) Die Zeit (center) 31) Die Welt (center-right)
9	Denmark	1. Politiken (center-left) 2. Berlingske (center-right) 3. Jyllands-Posten (center) 4. Kristeligt Dagblad (conservative)
10	Spain	32) El País (center-left) 33) El Mundo (center-right) 34) ABC (right) 35) La Vanguardia (liberal)
11	France	(A) Libération (left leaning) (B) Le Figaro (right) (C) Le Monde (center-left) (D) La Tribune (liberal)
12	United Kingdom	(i) The Guardian (center-left) (ii) The Times (center) (iii) The Financial Times (center-right) (iv) The Daily Telegraph (right)

Table 3.A4.1: List of newspapers (derived prior to beginning search). (*continued*)

#	Country	Newspapers of record/quality	
13	Ireland	(v)	Irish Times (center-left)
		(vi)	Irish independent (right)
		(vii)	Business Post (liberal)
		(viii)	The Sunday Times (conservative)
14	Italy	(ix)	La Repubblica (center-left)
		(x)	Corriere della Sera (centrist)
		(xi)	Il Sole 24 Ore (liberal)
		(xii)	Avvenire (conservative)
15	Japan	(xiii)	Yomiuri Shimbun (right-center)
		(xiv)	Asahi Shimbun(left-center)
		(xv)	Mainichi Shimbun (left-center)
		(xvi)	Nikkei (right-center)
16	Republic of Korea	(xvii)	Chosun Ilbo (right-center)
		(xviii)	Dong-A Ilbo (center)
		(xix)	JoongAng Ilbo (center-right)
		(xx)	Hankook Ilbo (center)
17	Mexico	(xxi)	El Universal (center)
		(xxii)	La Jornada (left-wing)
		(xxiii)	La Prensa (center)
		(xxiv)	El Financiero (center-right)
18	Poland	(xxv)	Gazeta Wyborcza (center-left)
		(xxvi)	Rzeczpospolita (center)
		(xxvii)	Dziennik Gazeta Prawna (center-right)
		(xxviii)	Puls Biznesu (center-right)
19	Sweden	(xxix)	Svenska dagbladet (center)
		(xxx)	Dagens nyheter (center)
		(xxxi)	Göteborgs-Posten (right-center)
		(xxxii)	Sydsvenska Dagbladet (center)
20	Turkey	(xxxiii)	Cumhuriyet (center)
		(xxxiv)	Hürriyet (center-right)
		(xxxv)	Sözcü (right)
		(xxxvi)	Habertürk (center)
21	USA	(xxxvii)	The New York Times (center)
		(xxxviii)	The Wall Street Journal (center-right)
		(xxxix)	USA Today (left-leaning)
		(xl)	Washington Post (center-left)

*Australia is the only country where only two newspapers ended up generating a sufficient amount of data.

REFERENCES:

ESS (European Social Survey) (2012). Media Landscape Media Claims: ESS Round 6. Available: https://www.europeansocial-survey.org/data-portal

ESS (European Social Survey) (2018). Media Landscape Media Claims: ESS Round 8. Available: https://www.europeansocial-survey.org/data-portal

APPENDIX 3.5: SEARCH PROCEDURE

3.5.1 Search String Construction

The search string for collecting newspaper articles was derived according to the procedure in Figure A5.1. This approach aimed to positively derive an appropriate set of search terms, by which we mean that our focus was on developing suitable terms with scrutiny on the terms themselves, rather than conducting many different searches and comparing the results which would be very difficult to do and assess in practice. This is in accordance with the typical procedure for systematic qualitative searches/reviews.

This procedure involved theoretical considerations (step 1), empirical considerations (steps 2, 3), and application considerations (step 4). It also includes aspects of accuracy – that is, reaching the target (steps 1, 2, 3) and precision – that is, reducing noise (step 4).

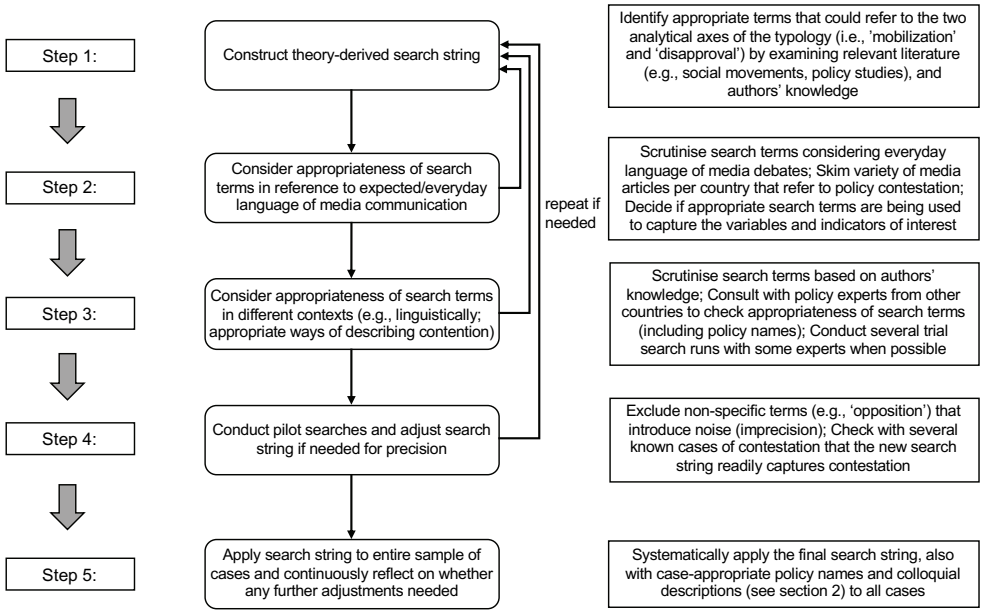


Figure 3.A5.1: Search string construction

While the final version of the search string is presented in Section 3.2 Data Collection and Analysis, it took several rounds of refinement following Figure 3.A5.1 to be specific (i.e., both accurate and precise) but also inclusive (i.e., allowing for difference and variation across cases). For example, the term 'opposition' (and its linguistic derivatives) was originally included but later proved to introduce too much noise because it included all aspects of political opposition (such as opposition in general, and as a formal role in parliamentary systems). Searches were conducted with and without this term, checking for loss of specificity on the

climate policy issues of relevance, and we could not observe any loss of accuracy while we did gain in precision. This was similar for the term 'challenge' which rendered many irrelevant results due to its non-specificity. For the policy name, we initially used only the formal name but quickly noticed that newspapers rarely use the official policy titles and therefore we also added colloquial terms more likely to be used by general audience (e.g., 'carbon tax' and its relevant translations), so we included both official and colloquial policy names in the search string.

3.5.2 Search Procedure

In addition to the description of the search procedure in Section 3.2 Data Collection and Analysis, here we provide some further information on various aspects.

Choice of NexisUni database:

We used NexisUni because it is an academically focused global database that enables systematic search and sourcing of newspaper articles through university library subscription access. It is therefore directly comparable to Factiva. NexisUni is considered to be an equal global standard database for newspaper data at our university and among universities in our country collectively (where there has been a shift in recent years towards NexisUni rather than Factiva). For example, another university has publicly stated that the interface of Factiva can have problems that lead to substantial underutilization of the database, and that there is a lack of transparency about how articles are selected/ included, and for this reason they now recommended using NexisUni (a view which our university library also subscribes to).

Comparison between NexisUni and Factiva databases:

Nonetheless, during the review process, we were prompted to compare the NexisUni search performance to Factiva as an additional check (see Appendix 3.6). We therefore applied our search strategy two both databases (i.e., NexisUni and Factiva).

Reflections on cases with little or no data:

For the cases where no data was found, we reflected at length on these cases, and sought to address this in multiple ways:

1. We focus at the outset on developing a comprehensive but practical search string using terms that take into account different relevant terms (formal and anecdotal), appropriate translations into different languages, and contextual appropriateness in the way that issues are discussed (Appendix 5.1),
2. We carefully select four quality newspaper sources per country where we would expect open reporting of matters of public issue/concern,
3. We begin with two newspapers and then expand the number of newspapers to four when we did not find results in the first round, again ensuring newspapers of quality,

4. We conduct open-ended google searches using the same search terms to try to detect any further signals of contention that were not detected in the previous systematic newspaper searches, and
5. We conduct a comparison search with an additional database (Factiva) to check whether there were any major differences (e.g., missing data), which we did not find.

Hence, for those cases that did not return results, we therefore conclude that there were no detectable signals of major public contention. Therefore, following our theoretically driven approach focused on positively identifying contention, we conclude that these cases should be categorized as acceptance. This could occur for varying reasons as pointed out in Section 2.2 (in a footnote) explaining the typology, and in Section 4.2 in the Results. Therefore, we are confident that the cases without data are genuine cases lacking contention.

APPENDIX 3.6: SEARCH COMPARISON: NEXISUNI AND FACTIVA

The results of a comparison of searches performed on NexisUni and Factiva databases (see Appendix 5.2) is provided in Table 3.A6.1. This provides a form of robustness check of the database. The compararison suggests that overall NexisUni features an equal or slightly wider coverage of newspaper data for the purposes of this study. In the instances when Factiva renders more results, these returns are additionally screened for relevance. Most are hits from editorials that are prone to delivering 'noisy' results (i.e., the search string elements are present not within an article but across the entire editorial).

Table 3.A6.1: Comparison of the same search performed in NexisUni and Factiva databases.

Case no.	Country	Policy name & Year	Returns in NexisUni	Returns in Factiva	Comment on negative discrepancy
1	Australia	- *Clean Energy Act Australia (2011)* - *Carbon Pricing Mechanism Australia (2012)* - *Carbon Pollution Reduction Scheme (CPRS) - Emissions Trading Scheme Australia (2012)* - *Clean Energy Future Plan Australia (2012)*	1891	1719	n/a
2	Australia	- *Safeguard Mechanism Australia (2016)*	43	23	n/a
3	Austria	- *Energy efficiency Act Austria (2014)*	1	0	n/a
4	Canada	- *Federal Carbon Pricing Approach and Backstop System Canada (2017)* - *Greenhouse Gas Pollution Pricing Act Canada (2018)* - *Fuel charge Canada (2019)* - *Federal Greenhouse Gas Offset System Canada (2020)*	305	602	NexisUni did not include the returns from 'The Globe and Mail' we included this in the consideration, we included into the pull, and the result does not change. Additionally, many returns from Factiva are from editorials, i.e., 'noisy'/irrelevant returns
5	Canada	- *Regulations Limiting Carbon Dioxide Emissions from Natural Gas-fired Generation of Electricity (SOR/2018-261) Canada (2019)*	10	0	n/a
6	Canada	- *Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations Canada (2012)* - *Regulations Amending the Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations: SOR Canada (2018)*	7	4	n/a
7	Switzerland	- *CO2 Compensation Duty for Importers of Fossil Motor Fuels Switzerland (2014)*	3	4	Negligible difference

Table 3.A6.1: Comparison of the same search performed in NexisUni and Factiva databases. (*continued*)

Case no.	Country	Policy name & Year	Returns in NexisUni	Returns in Factiva	Comment on negative discrepancy
8	Switzerland	- *CO2 Act Switzerland (2013)*	13	26	Included few additional findings for further Nvivo coding, but mostly, Factiva returns are from editorials, i.e., 'noisy'/irrelevant returns
9	Chile	- *Coal power phase-out plans Chile (2021)* - *Bill on the prohibition of coal-fired thermoelectric plants Chile (2021)*	9	1	n/a
10	Chile	- *Carbon Tax Chile (2014)*	15	11	n/a
11	Colombia	- *Law 1819 creating the National Carbon Tax Colombia (2016)*	13	14	Negligible difference
12	Colombia	- *Resolution 40715/2019: Wholesale Energy Market with RES*	10	7	n/a
13	Costa Rica	- *Decree No. 41578 extending the national moratorium on oil exploration and exploitation Costa Rica (2019)*	0	3	No relevant (content-wise) additions were detected
14	Germany	- *Greenhouse Gas Reduction Quota Germany (2015)*	3	0	n/a
15	Germany	- *Fuel Emissions Trading Act (BEHG) Germany (2019)*	26	7	n/a
16	Germany	- *German Coal Exit Law (Kohleausstiegsgesetz) Germany (2020)*	742	337	n/a
17	Denmark	- *Tax Reform 2.0 Denmark (2009)*	26	0	n/a
18	Spain	- *Royal Decree Law 15/2012 on Tax Policy Aimed at Energy Sustainability Spain (2013)*	0	0	No search results. This may be due to content restrictions on your academic account.
19	Spain	- *Royal Decree 1565/2010 on the New Tariff Regulation for the Production of Photovoltaic Electrical Energy Spain (2010)*	0	0	No search results. This may be due to content restrictions on your academic account.
20	France	- *Excise Tax on Energy Products France (2011)*	13	17	No relevant (content-wise) additions were detected

Table 3.A6.1: Comparison of the same search performed in NexisUni and Factiva databases. (*continued*)

Case no.	Country	Policy name & Year	Returns in NexisUni	Returns in Factiva	Comment on negative discrepancy
21	France	- *Excise Tax on Final Electricity Consumption France (2010)*	0	0	No search results. This may be due to content restrictions on your academic account.
22	France	- *Carbon Charge Component France (2014)* - *Law on Energy Transition for Green Growth (Energy Transition Law) France (2015)*	430	139	n/a
23	France	- *Law on the End of Exploration and Exploitation of Hydrocarbons and Diverse Dispositions Related to Energy and the Environment France (2017)*	3	1	n/a
24	UK	- *Carbon Price Floor United Kingdom (2013)*	8	2	n/a
25	UK	- *Finance Act United Kingdom (2020)*	11	17	No relevant (content-wise) additions were detected (+ some irrelevant references to Australia)
26	UK	- *Energy Act United Kingdom (2011)*	65	38	n/a
27	UK	- *Energy Act United Kingdom (2013)*	7	2	n/a
28	UK	- *Finance Act United Kingdom (2011)*	13	16	No relevant (content-wise) additions were detected
29	UK	- *The Greenhouse Gas Emissions Trading Scheme Order United Kingdom (2020)*	10	11	n/a
30	Ireland	- *Finance Act 1992 – as amended by Finance Act (No. 1) of 2013 Ireland (2013)*	2	1	n/a
31	Italy	- *Taxing energy use Italy (2019)*	3	1	n/a
32	Italy	- *Abrogation of the legal regime applying to nuclear energy production Italy (2011)*	6	5	n/a
33	Japan	- *Tax for Climate Change Mitigation Japan (2012)* - *Act Partially Amending the Law on Special Tax Measures (Tax Reform Act) Japan (2012)*	0	0	No search results. This may be due to content restrictions on your academic account.

Table 3.A6.1: Comparison of the same search performed in NexisUni and Factiva databases. (*continued*)

Case no.	Country	Policy name & Year	Returns in NexisUni	Returns in Factiva	Comment on negative discrepancy
34	Japan	- *Act on Purchase of Renewable Energy Sourced Electricity by Electric Utilities (Law No. 108 of 2011) Japan (2012)*	0	0	No search results. This may be due to content restrictions on your academic account.
35	Japan	- *Thermal power plant emissions guidelines (2013)*	0	0	No search results. This may be due to content restrictions on your academic account.
36	South Korea	- *Transportation-Energy-Environment Tax Republic of Korea (2015)*	0	0	No search results. This may be due to content restrictions on your academic account.
37	South Korea	- *Emissions Trading Scheme Republic of Korea (2015)* - *Domestic Emissions Trading Pilot Scheme for Korean Industries and Power Sector Republic of Korea (2015)*	0	2	No relevant (content-wise) additions were detected
38	Mexico	- *Energy Transition Law Mexico (2015)*	28	21	n/a
39	Mexico	- *Guidelines establishing and issuing Clean Energy Certificates Mexico (2015)* - *Capacity and power auctions supported by clean energy certificates Mexico (2016)*	13	10	n/a
40	Mexico	- *Carbon Tax Mexico (2014)* - *Law on the Electricity Industry Mexico (2014)*	174	161	n/a
41	Mexico	- *Emissions Trading System Mexico (2019)* - *Emissions Trading Scheme Pilot Project Mexico (2020)*	13	10	n/a

Table 3.A6.1: Comparison of the same search performed in NexisUni and Factiva databases. (*continued*)

Case no.	Country	Policy name & Year	Returns in NexisUni	Returns in Factiva	Comment on negative discrepancy
42	Poland	- *Energy efficiency Law Poland (2011)*	0	162	The seemingly significant discrepancy is a result of: 1) noisy returns for the homonymous nature of the word 'to challenge' (in a sense 'to oppose') that also means 'an issue' in Polish); 2) there are many compiled news reports/editorials so key elements of the search string are present in one document but across different stories; 3) broad title of the policy so frequently it relates to Poland 'protesting EU EE initiatives' => no relevant (content-wise) additions were detected
43	Sweden	- *Act on Electricity certificates: Act No. 2011:1200 and Regulation on Electricity certificates – Regulation No. 2011:1480 Sweden (2011)*	0	0	No search results. This may be due to content restrictions on your academic account.
44	Sweden	- *Government Bill (2009/2010: 172): Nuclear Power opening the way for a generation change & Government Bill (2009/2010:173): Nuclear Power Increased Liability Sweden (2011)*	0	0	No search results. This may be due to content restrictions on your academic account.
45	Sweden	- *An Integrated Climate and Energy Policy Sweden (2009)*	0	0	No search results. This may be due to content restrictions on your academic account.

Table 3.A6.1: Comparison of the same search performed in NexisUni and Factiva databases. (*continued*)

Case no.	Country	Policy name & Year	Returns in NexisUni	Returns in Factiva	Comment on negative discrepancy
46	Turkey	- *Electricity Consumption Tax Turkey (2019)*	0	0	No search results. This may be due to content restrictions on your academic account.
47	Turkey	- *Emissions Trading Scheme Turkey (2011)*	0	0	No search results. This may be due to content restrictions on your academic account.
48	United States	- *Affordable Clean Energy (ACE) United States (2019)*	2	3	No relevant (content-wise) additions were detected
49	United States	- *Clean Power Plan United States of America (2014)*	116	66	n/a
50	United States	- *Carbon Pollution Standard (CPS) United States of America (2012)*	1	0	n/a

APPENDIX 3.7: SCORING PROCEDURE AND EXAMPLES

Here we provide further explanation of how the typology presented in Section 2 (Figure 3.1) is operationalized (Table 3.A7.1) and applied using two examples (below) from Australia (Table 3.A7.2) and Canada (Table 3.A7.3).

		Mobilization	
		Absent	**Present**
Disapproval	**Absent**	Acceptance	Support
	Present	Non-acceptance	Backlash

Figure 3.A7.1: Typology of public policy responses to climate policy

Operationalization of Typology

The scoring approach derives an intensity measure for the two axes (variables) of the typology (disapproval and mobilization) and then determines whether the variable of interest is present based on whether the intensity measure meets a threshold for detection. Ordinal indicators (0-3 scale) are used for each axis. Disapproval is comprised of indicators for policy dis-favorability and government dissatisfaction. Mobilization is comprised of indicators for number of participants, directed action (including frequency, variety, and attention of policymakers), and goal specificity. The ordinal scores of the indicators are averaged for each variable (disapproval, mobilization) (i.e., summed and divided by the number of indicators) to provide an intensity score for the presence of the variable. This averaging approach weights all measures equally, with a final score within the same range as the individual measures (i.e., between 0-3), and without reducing the final product to zero if any of the measures scores as zero.

To proceed with categorization (i.e., to transform the scores into categories), we then compare the intensity score to a threshold (Table 3.A7.2). Given the conceptual anchoring of our approach in disapproval, we apply a conservative threshold of ≥2 for the (rounded) intensity measures of disapproval and mobilization derived using Table 3.A7.1 This is higher than the halfway point of the scale because we want to be sure that an instance of contention (involving disapproval and/or mobilization) is genuine.

Overall, we draw inspiration for this operationalization approach and scoring procedure from social movement literature which offers insights into conceptualization and pragmatic operationalization of public contention (McAdam & Boudet, 2012) as well as its measurement via the newspaper analysis (Earl et al., 2004; Soule & Earl, 2005) Additionally, well known databases as Mass Mobilization Database, Global Protest Tracker, Nonviolent and Violent Campaigns and Outcomes, and ACLED (Armed Conflict Location & Event Data) use newspaper data as sole or key sources. We aimed to take these approaches as a starting point to follow similar good practices, while also applying many of our own requirements for our specific focus.

Table 3.A7.1: Operationalization of typology in Figure 3.A7.1.

Indicators	Description	Scores (0-3)			
		0	**1**	**2**	**3**
Disapproval:			Disapproval score = Policy [0-3] + Government [0-3] / 2 (rounded to nearest whole number)		
1. Policy dis-favorability	Public dis-favorability of specific policy as reported in newspapers (interpreted; anchored in disapproval)	Absent (no evidence of dis-favorability)	Low (evidence of limited and/or sporadic dis-favorability)	Medium (evidence of notable dis-favorability which might vary over time)	High (evidence of widespread and sustained dis-favorability)
2. Government Dissatisfaction	Dissatisfaction with incumbent government as reported in newspapers (interpreted)	Absent (no evidence of dissatisfaction)	Low (evidence of limited and/or sporadic dissatisfaction)	Medium (evidence of notable dissatisfaction which might vary over time)	High (evidence of widespread and sustained dissatisfaction)
Mobilization:			Mobilization score = People [0-3] + Action [0-3] + Goal [0-3] / 3 (rounded to nearest whole number)		
1. People	Number of participants	Absent	100-999	1,000 – 9,999	> 10,000
2. Action	Salient forms of mobilization (e.g., protest, demonstration, march, petition, etc.)		Action sub-score = (Frequency [0-3] + Forms [0-3] + Attention [0-3]) / 3		
2.1. Frequency (n = number of times of action occurrence)	Actions with the same goal sustained over time => evidence of continuity	Absent (n=0)	Low (n=1)	Medium (n=2)	High (n≥3)
2.2. Variety of forms of action (n = number of forms of action)	Multiple forms of action taken demonstrating persistence	Absent (n=0)	Low (n=1)	Medium (n=2)	High (n≥3)

Table 3.A7.1: Operationalization of typology in Figure 3.A7.1. (*continued*)

Indicators	Description	Scores (0-3)			
2.3. Attention of policymakers	Recognition by policymakers, such as discussion in parliament or publicly addressed by high-level officials	Absent	Low	Medium	High
3. Goal	Relevant claim to the policy in question (i.e., core claims are related to the specific policy/ package in the case)	Out of scope	Low (claim relates to climate change in general)	Medium (claim relates to climate policy in general terms)	High (claim relates to the specific policy of the case)

Table 3.A7.2: Thresholds for determining presence/absence of disapproval and mobilization based on the intensity scores.

Response Category	Mobilization Score	Disapproval Score	Comment
Support	≥ 2	<2	Medium-high mobilization and absent-low disapproval
Acceptance	<2	<2	Absent-low mobilization and disapproval
Non-Acceptance	<2	2-3	Absent-low mobilization and medium-high disapproval
Backlash	≥2	≥2	Medium-high mobilization and disapproval

The following Tables A7.2 and A7.3 provide examples illustrating the scoring and coding procedure using the cases of Australia's carbon pricing policy (Case #1) and Canada's carbon pricing (Case #4).

Example 1: Australia's carbon pricing policy package (Case #1)

Australia's carbon pricing policy package is an interesting case with the most newspaper articles identified in search. From 1891 identified articles in total, 150 articles were selected for in-depth qualitative analysis. The richness of data can be explained by the case complexity as it includes both anti-policy activity as well as some activity in support of the policy and climate action in general. We do not treat this dual directionality numerically (i.e., against and for the climate policy package) as it would not make sense to assume that these actions could cancel each other out, and their co-presence is in fact reflective of the contention that occurred. Instead, we code and score the different sets of activity separately to gain a richer insight into the case while ultimately focusing on contention.

Note: The items in the table are illustrative and non-exhaustive, and provided to give insight into the coding.

Table 3.A7.3: Australia's carbon pricing policy package (Case #1).

	Indicators	Assigned scores of measures	Assigned scores of variables/axes	Data interpretation and comments (excerpts from the data below)
Disapproval	1. Policy dis-favorability	3	3	- Pronounced, large-scale dis-favorability of the policy; - NB: presence of country-wide instances of public support was detected as well (of lesser intensity comparing to the anti-policy response) => *high level of dis-favorability [3]*
	2. Government dissatisfaction	3		- anti-Labor sentiments; - claims of no confidence; - calls for the government to resign; - 'for a year the polls were consistently below 40%' => *high level of dissatisfaction [3]*

Table 3.A7.3: Australia's carbon pricing policy package (Case #1). (*continued*)

	Indicators		Assigned scores of measures	Assigned scores of variables/axes	Data interpretation and comments (excerpts from the data below)
Mobilization	1. People		3	3	- '11 convoys of trucks and thousands of people'; - 'Convoys from dozens of regional towns'; - ' About 200 trucks arrived in Canberra in convoys from around Australia' => *more than 10,000 participants [3]*
	2. Action	2.1. Frequency [3]	3		Unfolded over more than three months in multiple forms in connection with the wide media coverage and other forms of public attention => *highly sustained [3]*
		2.2. Multiple forms of action [3]			- Protests/ rallies/ truck convoys/ petitions/ mobs/ disruption of Parliament sessions/ attacks on political figures/ formation of new institutions/initiatives/ lobby interventions/ bureaucratic forms of scrutiny (Freedom of Information requests); - NB: occasionally same forms of action were used in support of the policy; => *highly diverse [3]*
		2.3. Attention of policymakers [3]			- Leaders of political parties (including the incumbent PM and the Opposition Leader); - members of parliament; - members of the government => *highly salient [3]*
	3. Goal		3		- Policy-specific ('Axe the tax' is the motto of the anti-policy campaign) => *highly relevant claims [3]*

Total Score: [Mobilization; Disapproval] = [3;3]
Category: Backlash

Table 3.A7.4: Evidence gathered through the newspaper analysis (Australia, Case #1).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence

Forms of contention	Description & Source(s)
MOBILIZATION ANTI-POLICY:	
Protest: 'Convoy of no confidence' ~Aug 15-25 2011 NB: large scale protests also took place in March 2011	1. "*Organised by the National Road Freighters Association, has been under way since last week with 11 convoys of trucks, UVs, and cars snaking their way to Canberra from as far afield as Broome, Fremantle and Darwin. Tony Abbott yesterday joined the convoy, boarding a Canberra-bound truck at Marulan near Goulburn. Speaking on the Ten Network's The Bolt Report, the Opposition Leader said it was his responsibility to be the ``voice of the voiceless" and ``speak up for people who have been disenfranchised by government". He said the participants were ``salt of the earth Aussies who are hard working and want to see a government that deals fairly with them".* SOURCE: "A convoy of no confidence pulling to a halt in Canberra" — The Australian - August 22, 2011. 2. "*Gillard will acknowledge the protest but ignore its Humperdinck-like demands".* SOURCE: "Angry mobs ready to face off as MPs take leave of trouble" — Sydney Morning Herald (Australia) — August 22, 2011. 3. *"Convoys from dozens of regional towns will converge in Canberra on Monday, to protest against the carbon price legislation, the recent ban on live animal exports, and the government's plan to process asylum seekers in Malaysia - under the banner of the Convoy of No Confidence. The protest is being organised by a group representing truck owners and drivers, the National Road Freighters Association. Organisers are not clear on exactly what they will do in the event that Parliament is not dissolved when the rally is scheduled to disperse on August 23. Internet forums discussing the convoys make mention of the government being the "enemy" of the people, and talk of "civil war" over the carbon price legislation. But the organisers say the protests will be peaceful and they are working with the Australian Federal Police to keep them that way."* SOURCE: "Convoy of discontent drives its issues to capital" — Sydney Morning Herald (Australia) — August 20, 2011. 4. *"There were lots of small business owners who would be adversely affected by the tax - paying higher prices without compensation. Protesters had a universal sense of frustration with the government, wondering whether the promise of a 2012-13 budget surplus was the latest lie. Several felt the whole country was drifting. A proposal for federal recall elections would have been popular. A rally is neither an academic forum nor a debating society, where issues are considered in a dispassionate way. It's an occasion to call the troops to action and to show the wider public that there is a significant groundswell of opinion about an issue, which it did."* SOURCE: "Tax roused the rabble, but it's marginal Labor MPs who should rally" — Sydney Morning Herald (Australia) — August 19, 2011. 5. "*Non-union transport workers claim a groundswell of support for their plans for a procession of trucks, cars and thousands of angry citizens to converge on the nation's capital later this month to send a message to the Labor government to drop the carbon tax or call a new election. Dubbing it the "convoy of no-confidence", organisers from the National Road Freighters Association say they represent a wide movement of workers and small operators in mining, farming, manufacturing and transport who are opposed to the tax.* SOURCE: "Truckies' no-confidence convoy to drive carbon message home" — The Australian — August 8, 2011.

Table 3.A7.4: Evidence gathered through the newspaper analysis (Australia, Case #1).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Protest: 'Convoy of no confidence' ~Aug 15-25 2011 NB: large scale protests also took place in March 2011	1. *"About 200 trucks arrived in Canberra in convoys from around Australia, including Port Hedland and Darwin, but organisers had been predicting many more. The ACT police quickly clarified no trucks had been stopped and in fact the convoys had been given a special escort into the national capital".* SOURCE: "Protesters rage at false report trucks stopped" — Sydney Morning Herald (Australia) – August 23, 2011 2. *"A meeting of 700 NSW TWU delegates on August 24 and 25 would consider a range of actions to raise awareness of this campaign. Mr Wilkie is leading one of 11 convoys and thousands of people whom organisers say will begin the road trip on August 17. When the convoy arrives in Canberra five days later, it hopes to make a conspicuous entry by clogging up arterial roads and causing major traffic congestion".* SOURCE: "Truckies' no-confidence convoy to drive carbon message home" – The Australian — August 8, 2011.
Protest of cattlemen and meat industry in general (de facto joined Convoy of no confidence)	1. *"They are part of an industry mobilized by anger towards the government. But the protest is about much more than cattle. "We were hesitant to participate due to time and cost, but two things put us over the line," said Thompson, who will be driving a campervan. "The first was reading the 340-page Clean Energy Bill 2011 [the federal carbon tax bill], and the other 12 bills to which it is attached. "The words 'global warming' are not mentioned but monetary transfers to the United Nations are outlined and power is given to an international consortium of finance companies. This bill makes the Copenhagen treaty [COP15] look like a children's book. "There was also Marlee Ranacher's heartwrenching story on 60 Minutes about the impact on her and her family of the government's knee-jerk decision to ban exports of cattle to Indonesia. So we decided to drive across the Nullarbor as part of the convoy of no confidence in the federal government." The emotional fuel for the protest was the devastation caused to the live cattle trade by the government's sudden decision to shut down live exports after the ABC broadcast images of cruelty to cattle in an Indonesian abattoir".* SOURCE: "Cattlemen driven to desperation by Canberra" — Sydney Morning Herald (Australia) — August 15, 2011. 2. *"In Canberra the assembled protesters will call for a double dissolution of Parliament so the government can seek a mandate for the sweeping changes it is proposing, especially the carbon tax which the Prime Minister, Julia Gillard, ruled out during last year's election campaign. Three issues are driving the participants: first, their sense that the government has comprehensively mismanaged and misunderstood the live-cattle export industry; second, a belief in the high cost and pointlessness of the proposed carbon tax; third, a sense that the Gillard government, with low public support, no majority in Parliament, and no electoral mandate for its policies, has lost legitimacy and should seek a mandate by holding a new election."* SOURCE: "Truckies' no-confidence convoy to drive carbon message home" — The Australian — August 8, 2011.

Table 3.A7.4: Evidence gathered through the newspaper analysis (Australia, Case #1).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Protest in March 2011	3. *"It first became evident on March 23, the day of the first anti-carbon tax rally outside the Federal Parliament, when the Prime Minister was happy to demean the several thousand demonstrators, including Sue Isles, who had turned up that morning: ""As I understand it, the Leader of the Opposition did not lack for redheaded company at that rally,"" Gillard said in answer to a question from Tony Abbott during question time. ""He had a redheaded friend out at that rally, so I am sure he would not have missed me."" The irony of this smear - that opposition to the carbon tax is led by people such as Pauline Hanson - was that Abbott was the person most responsible for putting Hanson in jail.* *"I've never had the sense before that we are disconnected from the government. We spent our lives in small business and this government is just making it harder and harder. This new carbon tax was the last straw."* SOURCE: "The great carbon chasm that could swallow Gillard whole" — Sydney Morning Herald (Australia) — April 25, 2011.
Signed Petition	4. *"…Organizers presented a petition of 25,000 signatures to the Opposition Leader in the Senate, Eric Abetz, who promised to table it in Canberra."* SOURCE: "Carbon tax rallies draw big crowds" — The Sydney Morning Herald (Sydney, Australia) — April 3, 2011. 5. *"The group's organizer, Peter Madden, said he had presented to Tony Abbott and Nationals senator Barnaby Joyce a petition with 34,000 signatures opposing the tax because the group had ``lost confidence in this government''".* SOURCE: "Protesters disrupt PM's address – CARBON TAX" – The Australian — October 13, 2011.
Protest in Sydney (01/07/2012)	1. *"About 2000 people are reported to have attended the anti-carbon tax rally in Sydney ("Climate change a hoax, Jones tells tax protesters", July 2). Using Alan Jones's logic after the Reconciliation Walk across the Harbour Bridge in 2000, that means about 4.39 million Sydneysiders did not protest against the carbon tax."* SOURCE: CARBON TAX — Sydney Morning Herald (Australia) — July 3, 2012. 2. *"The 1000-strong crowd that marched through Sydney's CBD yesterday to protest against the introduction of the carbon tax"* SOURCE: "Doubters give vent to emissions of anger. PROTESTS – CARBON TAX: DAY ONE" - The Australian — July 2, 2012. 3. *"As protests against the carbon scheme attracted thousands of people in Sydney and Melbourne, Labor MPs including Wayne Swan and Trade Minister Craig Emerson fanned out across the country to sell the new policy and debunk Mr Abbott's claims".* SOURCE: "Tax worth fighting for: PM's carbon blitz begins" — The Australian — July 2, 2012. 4. *"The relentless anti-carbon tax vitriol directed at Julia Gillard continued in the heart of Sydney's CBD yesterday as almost 1000 people gathered to protest against the proposed levy. With protesters holding placards and signs bearing slogans such as ``Ditch the Witch'', the rally was similar to one addressed by Tony Abbott in Canberra in March".* SOURCE: Witch is back in rowdy protest Weekend Australian July 2, 2011

Table 3.A7.4: Evidence gathered through the newspaper analysis (Australia, Case #1).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Protest in Melbourne (01/07/2012)	1. *"In Melbourne, a much smaller rally of about 100 people gathered on the steps of the Victorian parliament to protest against the introduction of the carbon tax",* SOURCE: "Doubters give vent to emissions of anger" – The Australian – July 2, 2012.
Protests in other cities	2. *"During the past month hundreds of people joined rallies in Canberra, Macquarie Street and Blacktown".* SOURCE: "The great carbon chasm that could swallow Gillard whole" — Sydney Morning Herald (Australia) — April 25, 2011.
	1. *"The protest rallies outside Parliament House revealed an anti-Labor grassroots movement based on an assembly of grievances: rejection of the carbon tax, agitation at rising costs, opposition to same-sex marriage. Above all, this is a movement against Labor's perceived values and its network of trade union and green supporter groups. This mood is only likely to intensify."* SOURCE: "Few positives for Gillard in horror poll" Sydney Morning Herald (Australia) - : 2011/06/18
	2. *"Polls range slightly above 40% but this was early, and for a year were consistently below 40%."* SOURCE: "Our heads remain above water" Weekend Australian August 20, 2011.
The Perth mob (21/08/2011 as part of Convoy of no confidence)	1. *"The Perth mob passed through Wagga Wagga yesterday at sun-set, with only seven vehicles, on their way to meet a group of about 40 cars and trucks at the hamlet of Coolac before heading into Canberra today".* SOURCE: "Convoy organisers hope 1000 vehicles will convey anger in capital" — Sydney Morning Herald (Australia) — August 22, 2011.

Table 3.A7.4: Evidence gathered through the newspaper analysis (Australia, Case #1).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Disruption of the Parliament session (October 2011)	2. *"More than 80 protesters were ejected from parliament for chanting ``No mandate" and ``Democracy is dead" from the public galleries, disrupting question time with co-ordinated protests as Julia Gillard's government secured the passage of the carbon tax through the lower house. About 120 anti-carbon tax protesters from the Consumers and Taxpayers Association descended on parliament, with four interruptions during question time".* 3. *"The protesters split into two teams on either side of the chamber and stopped Ms Gillard as she tried to answer a question from Liberal MP Karen Andrews. One protester, as she was dragged out of the public gallery, brandished a shoe to remind Ms Gillard of her promise to wear out her shoe leather in selling the carbon tax to voters".* SOURCE: Protesters disrupt PM's address - CARBON TAX - The Australian — October 13, 2011. 4. *"But for the middle-aged and up group who went to Canberra last week to make their voice heard about the carbon tax, it was the silent majority expressing how they were mad as hell and not going to take it any more. This week, The Weekend Australian revisited some of the protesters who made the journey from Sydney and elsewhere to federal parliament on the day the carbon tax bill passed the lower house. The protesters, numbering about 100, had mostly taken buses to Canberra under the loose organisation of the Consumer and Taxpayers Association. From the public galleries, they chanted ``No mandate" and ``Democracy is dead"".* SOURCE: Just regular folk looking for their chants to be heard – The Australian — October 22, 2011.
Freedom of Information Requests (FOIs)	1. *"Tim Wilson of the Institute of Public Affairs a vexatious Freedom of Information applicant. Dealing with Mr Wilson's 750 requests is no doubt time consuming, but guess what? When bureaucrats complain about being held to account the rest of us start wondering what they have got to hide. Journalists and researchers would have every reason to drop a few hundred more FOI requests onto their desks".* SOURCE: A chilling climate on FOI — The Australian — August 17, 2011.

Table 3.A7.4: Evidence gathered through the newspaper analysis (Australia, Case #1).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Joint Consultation/ Business groups discontent	2. *"More than 300 corporates gathered for a luncheon talk on carbon tax and its implications for business organised by the American Chamber of Commerce in Adelaide. OneSteel CEO Mark Parry, Australian Bankers Association CEO Steven Munchenberg and University of Adelaide's Professor Gus Nathan led a lively debate. Spotted in the crowd were Energy Exploration director Norton Jackson, Global Intertrade boss Manuel Ortigosa, Smith Motor Group GM Ditmar Gueher, Toop & Toop boss Anthony Toop and Commonwealth Bank's Adrienne Smith".* SOURCE: BUSINESS PULSE OF THE NATION – The Australian — July 9, 2011. 3. *"the Business Council of Australia and other industry groups will continue to press for amendments to the laws before the Senate vote, including a lower starting price, with the council planning to write to every senator with its proposed amendments".* SOURCE: "Power play for the future; Gillard seals carbon tax; Abbott makes 'pledge in blood' to repeal it" — Sydney Morning Herald (Australia) — October 13, 2011. 4. *"Australian Foundation Investment Company chairman Bruce Teele yesterday condemned the introduction of ``newfangled taxes" such as the carbon tax and the minerals resource rent tax that gave no credit to shareholders and were effectively ``double-taxing" corporate income. As with campaigns in the past, Mr Teele said he might mobilise AFIC's 100,000 retail shareholders against tax and other policies considered hostile to investors. He said he wondered if it was time for shareholders to write to their MPs on the issue of franked dividends".* SOURCE: ""New-fangled taxes put franked dividends in doubt, AFIC warns"" The Australian — March 20, 2012. 5. *"Pivotal to Labor's problem is the global failure to progress a legally binding international agreement on carbon pricing symbolised by the Copenhagen debacle in late 2009. ... The key lobbies — the Business Council of Australia and the Australian Industry Group — turned critical".* SOURCE: BAD TIMING, WRONG PRICE: CARBON TAX RISKS FAILURE — The Australian - July 4, 2012. 6. *"Labor cannot complain if the MCA, the Australian Chamber of Commerce & Industry, the Australian Coal Association and the Australian Food and Grocery Council have joined forces for a TV and film campaign".* SOURCE: ""No surprises in direct action - Correction Appended"" — The Australian - August 17, 2011. 7. *"As some of Australia's biggest companies increase pressure for an immediate repeal of the levy".* SOURCE: Businesses fear carbon tax twilight zone FIRST VOTE ON REPEAL COULD BE BEFORE CHRISTMAS The Australian November 14, 2013.

Table 3.A7.4: Evidence gathered through the newspaper analysis (Australia, Case #1).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Joint Consultation/ Business groups discontent	8. *"President of the Australian Taxi Industry Association John Bowe warned: "When the Middle East turmoil is driving up the cost of petrol, the cost of living is really biting families and the Prime Minister says Australia needs a carbon tax to change behaviours on climate change, it beggars belief that the government would even think to impose a levy on a green fuel such as LPG."* SOURCE: Green fuel tax angers cabbies – The Australian — March 27, 2011. 9. *"The deal now faces an immediate challenge from a coalition calling itself the Australian Trade and Industry Alliance, which is to mount a full-scale advertising campaign against the package. Leaked documents obtained by The Australian show the campaign is due to start within seven days of the carbon tax announcement and will run until parliament considers the legislation in September".* SOURCE: "Industry mobilises in carbon battle" — The Australian — July 1, 2011. 10. *"The minerals giants are threatening to relaunch the advertising campaign that almost tore down Labor in 2010 if they are hit with more tax increases in the budget next month. In a warning shot, the Minerals Council of Australia has run full-page advertisements in today's papers arguing that they are not prepared to accept another tax increase. They already face the carbon tax, the mining tax and a cut of 6.2Â¢ a litre in the diesel excise rebate, all due to start on July 1".* SOURCE: Mining companies muscle up for another stoush over new taxes in budget — Sydney Morning Herald (Australia) — April 13, 2012. 11. *The Consumers and Taxpayers Association + the Australian Trucking Association came together to protest the carbon tax.* SOURCE: "Year of the faux protester" — Sydney Morning Herald (Australia) — December 24, 2011. 12. *"Australian Workers Union fears that the carbon tax would wipe that steelworks town ``off the map"".* SOURCE: Carbon debate is taxing but falls short of targets — The Australian — July 2, 2012.

Table 3.A7.4: Evidence gathered through the newspaper analysis (Australia, Case #1).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Gov-t insitutions/ Coalition assistance to fight carbon tax/ Green Army alternative	1. *"Alongside industry's efforts were the allegedly ""grassroots"" anti-carbon-tax campaigns. Many people are genuinely against the tax, either because they don't accept the evidence of global warming, or because they don't believe Australia should act without more effort by other countries, or because they don't agree with using a market mechanism. They have, of course, a democratic right to express those views. But climate sceptic groups were greatly assisted in organisation and mobilisation by websites and organisations with close links to the Coalition, channelling and amplifying legitimate voices of community dissent for political gain. Perhaps that's why the sceptics at the rallies seemed to glide over the fact the Coalition's formal policy position is to accept the science of climate change and the need for Australia to reduce emissions by 5 per cent by 2020".* SOURCE: "Year of the faux protester" — Sydney Morning Herald (Australia) — December 24, 2011.
	2. *"The government's $525 million Green Army conservation initiative was rolled out on Saturday. Launching the project at Carss Bush Park in Sydney's south, Prime Minister Tony Abbott and Environment Minister Greg Hunt said it would be the largest environmental workforce the country had mobilised. About 2500 young people were expected to join up this year to work on 250 projects around Australia. ""It's six months of good work and good comradeship that you can come back and look at in the years ahead and say, 'I did that for my country',"" Mr Abbott said. ""This is not a work for the dole project, I want to stress this. It's an environmental traineeship."" The workers would be paid between $10 to $16 an hour while engaged in the project, less than minimum wage but higher than the Newstart or Youth Allowance rate. The number of participants was expected to rise to 15,000 by 2018. The Green Army, one of a range of proposals put forward by the federal government as an alternative to the repealed carbon tax, will recruit young Australians to engage in restoration and heritage protection projects".* SOURCE: "Abbott's Green Army ready to march (but it's not work for the dole)" — The Sydney Morning Herald (Australia) - Online August 2, 2014.
Public attacks on political figures	3. *"An angry crowd turned up on the minister's doorstep. Federal Transport Minister Anthony Albanese was called a ``maggot", had his tie violently tugged and was showered with abuse by hundreds of anti-carbon tax protesters outside his Sydney electorate office yesterday. The crowd of about 500, an offshoot of last month's Convoy of No Confidence truck rally in Canberra, was angered by Mr Albanese's remarks in parliament that they were nothing but a ``convoy of no consequence" who believed in ``a conspiracy". Similar actions targeted PM Gillard".* SOURCE: "Carbon-tax protesters besiege Albanese" — The Australian — September 2, 2011.
MOBILIZATION PRO-POLICY:	
Protest/ March in Brisbane 2011/03/16	1. *"A public vote of no confidence in the Coalition's environment and health policies fell on deaf ears Generally, only music festivals, cricket, tennis, the beach or the local pool bring out the masses on a scorcher in Brisbane. Instead, my family and I found ourselves at the March in Marc".* SOURCE: "Australia 2011 protests in central Brisbane" — The Australian — Sunday, March 16, 2011.

Table 3.A7.4: Evidence gathered through the newspaper analysis (Australia, Case #1).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Protest/ March in Brisbane 2011/03/16	2. *"Thousands turned out to support climate action at a family friendly gathering in Brisbane's King George Square yesterday. Organised by activist group GetUp!, the rally featured face painting and music for children - a deliberate move to show the positive message behind climate change action, national director Simon Sheikh said. GetUp! did not want ""to have a louder, angrier rally but to show the difference in both our numbers and message, the difference between fear and hope"", he said. ""We can answer their angry slogans and misinformation with a positive, family friendly gathering to stand up for our vision for clean energy and preserving a safe climate for our kids."* SOURCE: "Protest puts positive spin on climate action" — The SMH (Sydney, Australia) — April 10, 2011.
City of Sydney boycott of anti-carbon companies	3. *"The City of Sydney should boycott companies and industry groups funding anti-carbon price advertisements unless such companies publicly disavow that position, the Greens argue. The Greens councillor Chris Harris will call for the council not to purchase goods or accept tenders from companies that directly or indirectly fund the unfolding campaigns against the federal government's plan to put a price on carbon. The motion, which will be put forward at Monday's meeting, covers the more than 7000 members of the NSW Business Chamber, which funded newspaper advertisements run in the electorates held by the key federal independent MPs Rob Oakeshott and Tony Windso. It would also apply to companies involved in the $10 million slew of anti-carbon price advertisements that began yesterday from the Australian Trade and Industry Alliance, which includes the Minerals Council of Australia and the Australian Food and Grocery Council. Under the proposal, companies involved in the campaigns could only do business with the council if they publicly recanted that stance".* SOURCE: "Call to boycott carbon tax foes" — Sydney Morning Herald (Australia) — July 22, 2011.
Open letter by academics against spreading climate skepticism	4. *More than 50 Australian academics signed a letter urging Notre Dame University to cancel the speech, arguing that Lord Monckton ``stands for the kind of ignorance and superstition that universities have a duty to counter".* SOURCE: "Monckton beats gag attempt by academics" — The Australian — July 1, 2011.
Petition calling for climate action	5. *"Ms. Gillard, who received a petition with 12,500 signatures calling for climate change action yesterday, said ""neither extreme"" should be allowed to hijack the debate".* SOURCE: "Gillard suffers climate setback" — Sydney Morning Herald (Australia) — March 24, 2011.

Table 3.A7.4: Evidence gathered through the newspaper analysis (Australia, Case #1).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Government support action: meetings, campaigns	6. *"Julia Gillard is preparing to rally union leaders at a special dinner at The Lodge in Canberra tonight, outlining key government initiatives in industry policy and job creation, as supporters of Kevin Rudd declare the Prime Minister must lift the party's primary vote to 38 per cent in the next few weeks if she is to placate her critics. The dinner with key union affiliates follows a meeting late last year at which Ms Gillard had union leaders to Kirribilli House and laid out her intentions for a series of reforms that would meet their industrial agendas".* SOURCE: "PM to spruik IR wins as poll ultimatum set" — The Australian — July 20, 2012.
	7. *"The government began its $12 million carbon tax advertising blitz last night. A further $13m will be spent on a public information campaign. The broader sell began a week before with a lock-up for the media ahead of the policy launch. The tactic worked well".* SOURCE: "The hard sell: tax and credibility" — The Australian — July 18, 2011.
GetUp! org. campaigns (+ other partners such as Greenpeace Australia)	8. *"The time capsule, organised by GetUp!, will be handed to the Museum of Australian Democracy and opened in 2050".* SOURCE: "Abbott leaves trail of fumes as Senate finalises carbon tax" — Sydney Morning Herald (Australia) — November 8, 2011.
	9. *"At the same time, several thousand people rallied in support of the tax at an event in Belmore Park organised by the political action organisation GetUp! GetUp! national director Simon Sheikh said: "We must achieve a price on pollution and substantially invest in renewable energy."* SOURCE: "Carbon tax rallies draw big crowds" – Sydney Morning Herald (Australia) — April 3, 2011.
	10. *"Organisers claimed 60,000 people came from around the country to rally for action on climate change, including some 10,000 in Sydney who braved torrential rain and chilly temperatures. The Climate Change Authority (also slated for abolition in a separate bill) is preparing to recommend that the government boost its 2020 target to a cut of 15 or 25 per cent. It is also preparing to recommend an interim target of 50 per cent below 2000 levels by 2030. The refusal to release the brief came as 130 protests around the country were held. They were organised by a coalition of activists, including GetUp! Members of the crowd carried placards with slogans such as, "There's no Planet B", "My world in your hands", "One Climate, Our Future" and "Aim Higher on Climate"".* SOURCE: "Environment officials on tenterhooks with Hunt" — Sydney Morning Herald (Australia) — November 18, 2013.
	12. *"The Greenpeace chief executive wants to strengthen Canberra's backbone on climate change. He is scheduled to meet the Greens leader, Senator Bob Brown, and the Minister for Climate Change, Greg Combet, as well as address the National Press Club in Canberra and the Lowy Institute in Sydney".* SOURCE: "Greenpeace chief urges Australia to fight climate change" — Sydney Morning Herald (Australia) — July 4, 2011.

Example 2: Canada's Carbon pricing policy package (Case #4)

Canada's carbon pricing policy package is another interesting and data-rich case. From 305 articles identified, 115 were selected for in-depth qualitative analysis. This case also involved both anti-policy activity as well as some activity in support of the policy and climate action in general. Again, we do not treat this dual directionality numerically but instead focus on coding and scoring the different sets of activity separately to gain a richer insight into the case while ultimately focusing on contention.

Note: The items in the table are illustrative and non-exhaustive, and provided to give insight into the coding.

Table 3.A7.5: Canada's carbon pricing policy package (Case #4).

	Indicators	Assigned scores of measures	Assigned scores of variables/axes	Data interpretation and comments (excerpts from the data below)
Disapproval	1. Policy dis-favorability	2-3	2.25 => 2	- substantial, amount of evidence suggesting high level of policy disfavorability; - additionally, sizeable support for the policy and pro-climate policy agenda as such. => *medium-high level of disfavorability [2-3]*
Disapproval	2. Government dissatisfaction	2		- The disapproval rating of the incumbent government is record high; - Lack of trust; - The magnitude of disapproval at the federal level was somewhat dampened by substantial amount of disapproval channeled at the provincial level (NB: out of scope of this study). => *medium level of dissatisfaction [2]*
Mobilization	1. People	3	2.7 => 3	- Tens of thousands of participants; - more than a thousand vehicles in total; - tens of thousands took the streets; - a cross-country cavalcade; - 150,000 signed a pledge; - 7,600 joined the online community => *more than 10,000 participants [3]*
Mobilization	2. Action 2.1. Frequency [3]	3		Sustained over more than three months in various forms => *highly sustained [3]*

Table 3.A7.5: Canada's carbon pricing policy package (Case #4). (*continued*)

	Indicators	Assigned scores of measures	Assigned scores of variables/axes	Data interpretation and comments (excerpts from the data below)
Mobilization	2.2. Multiple forms of action [3]			- Protests; rallies; truck convoys; petitions; mobs; formation of new institutions/initiatives; lobby interventions; - NB: same action forms were used in support of the policy => *highly diverse [3]*
	2.3. Attention of policymakers [3]			- leaders of political parties; - federal government; - provincial government; - local authorities; - members of parliament; => *highly salient [3]*
	3. Goal	2-3		- Relatively policy specific claims coupled with substantial presence of broader claims based on regional importance of fossil fuel industry (i.e., climate policy in general terms) => *medium-high relevant claims [2-3]*

Total Score: [Mobilization; Disapproval] = [3;2]
Category: Backlash

Table 3.A7.6: Evidence gathered through the newspaper analysis (Canada, Case #4).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence

Forms of contention	Description & Source(s)
MOBILIZATION ANTI-POLICY:	
Convoy of trucks 'United we roll' / Pro-oil convoy (NB: their grievances are related to a broader set of issues including to the UN Global compact and sovereignty concerns) a) December 2018; b) twice in February 2019; c) then Fall 2019	1. *"120 big trucks are scheduled to leave Gorts Truck Wash at 8 a.m., linking up with another confirmed group of 60 from southern Saskatchewan on Friday morning. Nobody can peg a number on how many plan to participate in all. Organizers maintain that anyone is welcome to tag along, but Corbeil expects the count to range in the tens of thousands".* *"A second convoy departing from Fredericton, N.B., on Feb. 17 is scheduled to meet the western troop in Arnprior, Ont., 45 minutes outside Canada's capital, a day later to assemble before reaching their final destination".* *"The goal is to converge on Ottawa for a two-day demonstration on Parliament Hill beginning Feb. 19, drop a laundry list of complaints at the feet of the federal government, and make "as much noise as we can while they're in the House," Corbeil said. The contradictions grew particularly intense during last weekend's trucker protest in Ottawa. Some Conservative MPs supported the protesters. Others, echoing the feelings of many non-Conservative Canadians, were less enthusiastic. O'Toole himself appeared confused as to what he thought about the protest".* *"Indeed, O'Toole seemed confused about almost everything. He continued his efforts to appeal to a broad spectrum of Canadians. Yet he might reverse himself if those efforts appeared, in Conservative terms, to be too controversial".* SOURCE: "'Unite the right' attempt a bust" — The Toronto Star — February 4, 2019. 2. *"Part of a southern Saskatchewan group of truckers that fell in with the convoy on Friday, he's a member of a cross-country cavalcade calling Canadians from east to west to demonstrate at Parliament Hill on Tuesday. Representing his employer from the driver's seat of a company truck participating in the procession, he's technically on the job".* SOURCE: "Oil prices not Ottawa's fault" — The Globe and Mail — February 16, 2019. 3. *"The point of the protest, organizers say, is to show support for the country's oil and gas industry by opposing the carbon tax and legislation thought to harm the sector, among other things".* SOURCE: "As convoy claims unity, some truckers experience fear and loathing on the yellow vest road" — The Toronto Star — February 18, 2019.

Table 3.A7.6: Evidence gathered through the newspaper analysis (Canada, Case #4).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Convoy of trucks 'United we roll' / Pro-oil convoy (NB: their grievances are related to a broader set of issues including to the UN Global compact and sovereignty concerns) a) December 2018; b) twice in February 2019; c) then Fall 2019	4. *"23/12/2018 Convoys of trucks rolled slowly through Alberta and Saskatchewan on Saturday as demonstrations in support of Canada's ailing oil and gas sector continue".* *Police in Medicine Hat, Alta., estimate that 650 vehicles took part in a convoy that began on the Trans-Canada Highway east of the city and continued west to weigh scales before turning around and dispersing. A similar event in Estevan, Sask., brought around 450 trucks, according to a police estimate. Truck convoys began last weekend in Alberta. [aka United we roll]".* SOURCE: "Prairie truckers protest in support of oil; Saskatchewan premier backs demonstrations, blasts PM on Twitter" — The Toronto Star — December 23, 2018. 5. *"A few hours earlier, his was one of about 160 vehicles that filed out of Red Deer, Alta., for Regina, Sask., on the first leg of the United We Roll Convoy for Canada, a 3,500-kilometre ride to deliver a message to the federal government in Ottawa. Pro-oil convoy sets course for Ottawa to protest carbon pricing, among other things Pro-pipline rally group plan to take convoy to Ottawa in 2019 Massive pro-pipeline rally and truck convoy in Nisku snarl traffic on QEII Highway While the reasons for every driver's ride vary, Woywitka hitched his truck to the procession to protest federal energy policies he believes will stifle the sector he has invested his life in".* SOURCE: "Pro-oil convoy hits the road to drive message home to Ottawa" — The Toronto Star — February 14, 2019. 6. *"The Alberta-organized convoy to Ottawa saw a frustrated crowd protesting against the government with mixed messages more informed by feeling than fact. After a five-day journey — during which the group was met with a series of supportive rallies in and between towns and cities from Alberta through to Ontario — the United We Roll Convoy for Canada landed in the nation's capital Tuesday to promote pipelines and oppose energy and environmental policy, carbon pricing, and Prime Minister Justin Trudeau himself, among other things. "Flush the turd!" chanted members of the crowd, referring to an effort to replace Trudeau in the upcoming federal election. The protestors, many of whom had been with the convoy since leaving Red Deer, Alta., last Thursday, parked their pickups and big rigs along Wellington St. Tuesday morning and swarmed the sidewalk before trudging through knee-deep snow to a fenced enclosure for the rally. Organizers had expected the rally to garner massive support, but only about 200 people, many wearing yellow vests, occupied a small corner of the designated demonstration grounds on Parliament Hill Tuesday morning, though they were limited by the number of trucks allowed into downtown Ottawa".* SOURCE: Protesters greet Alberta-organized convoy on Parliament Hill — The Globe and Mail — February 19, 2019.

Table 3.A7.6: Evidence gathered through the newspaper analysis (Canada, Case #4).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Yellow Vest Canada incl. FB Group mobilization by Graig Collins (aka YVM)	1. *"Late last year Collins launched a new website, YellowVestGroup.com, and began promoting it on a Facebook page and group he created. Sharing Islamophobic memes along with images of the so-called "yellow vest" anti-carbon-tax protests in Canada, the page attracted more than 7,600 fans while the associated Facebook group had more than 2,700 members. Collins kept his name off of the site and used fake profiles to manage the associated Facebook presence. But a Toronto Star/BuzzFeed News investigation uncovered how he applied internet marketing skills to capitalize on the yellow vest movement's social media presence. Collins funneled followers from two Facebook pages and a group to the related website that earns revenue from ads, as well as to an online store where they could buy T-shirts, mugs and stickers with yellow vest slogans. By mid-January 2019, there were about 100,000 members in their Facebook group "Yellow Vest Canada", according to the Canadian Press. Global News reported that the Yellow Vest protests in Canada were largely driven by social media, particularly Facebook. against Prime Minister Justin Trudeau, and against the endorsement of the United Nations Global Compact for Safe, Orderly and Regular Migration (GCM)".* SOURCE: "An online bid to sway opinion comes cloaked in a yellow vest; Ordinary Canadians might be as much of a concern as foreign hackers when it comes to interference in our next election" — The Toronto Star — February 8, 2019.
Unifor assembly statement (trade union of oil & gas workers, represents 11,000 people)// Business lobbies	2. *"Ken Bondy, national representative for Unifor, which represents more than 11,000 oil and gas workers in almost every province, said the union has heard clearly from its membership that climate change is an issue for them, but they are also concerned about their jobs. "We need a balanced approach to taking climate action and just transition for workers that may be affected," said Bondy. "Quite frankly, I don't believe anybody has nailed down a specific explanation for just transition, or what it looks like."* SOURCE: "Calls for climate action rising since vote; Advocates say MPs must collaborate on emissions and worker transitions" - The Toronto Star November 2, 2019
	3. *"Business lobbies protesting that companies are excluded from the rebates can be appeased by including them".* SOURCE: "David Olive: Natural gas megaproject in B.C. fuels global boom" – The Toronto Star — October 22, 2018.
	1. *Seventy per cent of Ontario MPs support carbon pricing and more than 30 Ontario municipalities have declared climate emergencies. In September, Ontarians marched in youth-led climate strikes, including 50,000 in Toronto alone. Yet the voices of youth and many others have been excluded while the government's door stays open to industry lobbyists.* SOURCE: "Ford's steady walk away from climate action"— The Toronto Star — November 29, 2019.

Table 3.A7.6: Evidence gathered through the newspaper analysis (Canada, Case #4).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
	2. *"The government of Saskatchewan has also gone to its top court to challenge the federal government - Trudeau's plan to impose a carbon tax on provinces that fail to take steps to meet the carbon-pricing threshold set by Ottawa. In Ontario and Alberta, the Conservative opposition parties support Saskatchewan's move. If elected to power later this spring and next year, Doug Ford and Jason Kenney have both said they would fight Trudeau's carbon-pricing policy in court. Conservative Leader Andrew Scheer is planning to campaign next year on a promise to repeal the Liberal climate-change framework".* SOURCE: "Climate change fights heat up" — The Toronto Star — April 28, 2018.
	3. *"Progressive Conservatives are also bankrolling big legal bills to overturn the federal carbon law in the country's court rooms. Last week, Ontario's Court of Appeal judges delivered a devastating verdict against Ford; last May, Saskatchewan's top court reconfirmed Ottawa's authority; yet the premier is appealing all the way to the Supreme Court of Canada, where almost every legal expert has predicted from the outset the constitutionality of carbon pricing will be upheld".* SOURCE: "Ford's 'axe the tax' play is costing us" — The Toronto Star — July 4, 2019.
Court Challenges/ Institutional repeal campaign in 3 provinces	1. *"Ford's move to kill cap and trade, while lowering gasoline and natural gas prices, has exposed Ontario to the federal carbon pricing plan, against which the province has earmarked $30 million to wage a court battle".* SOURCE: "'Carbon trust' replaces cap and trade; Province plans to commit $400 million to the fund over a four-year period" — The Toronto Star — November 30, 2018.
	2. *"Ontario is one of four provinces, including Manitoba, Saskatchewan and New Brunswick, where Ottawa imposed the levy because they opted not to impose their own pricing schemes. Saskatchewan, which is also challenging the tax in court, says it has amended regulations so PST won't be charged on the carbon tax on SaskPower bills. "Even as our government is fighting this harmful tax in court, the federal government is imposing their carbon tax on Saskatchewan," Premier Scott Moe said. New Brunswick is an intervener in Saskatchewan and Ontario's court challenges. "This carbon tax is like a very bad April Fool's joke," Environment Minister Jeff Carr said in a statement. Manitoba Premier Brian Pallister also criticized the tax, saying Ottawa would be taking money away from households. "This is unfortunate and also demonstrates a lack of listening and willingness to co-operate." In Alberta, United Conservative Leader Jason Kenney has already pledged to axe the provincial carbon tax and said if he wins the province's election, a court challenge of the federal carbon tax will be launched by the end of the month".* SOURCE: "Provinces react to levy's first day" — The Globe and Mail — April 2, 2019.

Table 3.A7.6: Evidence gathered through the newspaper analysis (Canada, Case #4).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Court Challenges/ Institutional repeal campaign in 3 provinces	3. *"The government estimated that approximately 70 per cent of residents in the four provinces would receive more via the rebate than they would end up paying in increased costs. The parliamentary budget officer later estimated that only those in the top 20 per cent of income earners would end up paying more than they received. An Angus Reid poll conducted immediately after Trudeau announced the rebate found a significant shift in public opinion. In July 2018, 45 per cent of respondents supported the plan, against 55 per cent opposed. By late October the numbers had flipped: 54 per cent in favour, 46 per cent against. Support increased 11 points in Ontario.* *The Liberals also found a new way to talk about what they were doing. Dion had talked about a "carbon tax." Trudeau spoke initially of a "price on carbon." Then, two and a half years into governing, Liberal ministers and MPs started talking about a "price on pollution." This was about marketing and persuasion. But it was also, arguably, a clearer description of what the policy is supposed to do. "Canadians realize that polluting isn't free," McKenna had said. That is, Canadians should understand that greenhouse gas emissions have a cost: that the carbon emissions we produce ultimately contribute to damages to the environment, human lives and property. The professional opposition was nonetheless loud. Andrew Scheer, [Doug] Ford, [Jason] Kenney, [Brian] Pallister and [Scott] Moe formed a barbershop quintet of Conservative leaders who, without quite being able to explain how Canada would otherwise meet its international targets, were happy to sing the same dire tune about carbon pricing. Though a few are willing to dissent - most notably, Harper's former director of policy, Mark Cameron - it became an article of faith in post-Harper conservative circles that implementing a price on carbon would bring about economic ruin".* SOURCE:"I'm fully within my rights to do it anyway and I will'; The new book by Aaron Wherry, Promise and Peril, looks at the thinking behind Justin Trudeau's introduction of carbon pricing and the conviction that it would succeed despite the earlier failures of Stéphane Dion - and provincial opposition" — The Toronto Star – August 24, 2019. 4. *"Carbon taxes are also quite controversial in Alberta. The province's oil and gas industry along with its United Conservative government also routinely slam Bills C-48 and C-69, two pieces of Liberal legislation which restrict tanker traffic on the West Coast and overhaul Canada's regulatory process for major infrastructure projects, including pipelines. Alberta Premier Jason Kenney has openly backed the federal Conservatives during the election, even travelling to Ontario to campaign alongside their candidates. He frequently says the Liberal government doesn't do enough to push for interprovincial infrastructure - namely, pipelines - going so far as to accuse Trudeau of threatening national unity by not doing so".* SOURCE: "Liberal Leader Justin Trudeau says Kenney does not speak for all Albertans during Calgary stop" — The Toronto Star — October 19, 2019

Table 3.A7.6: Evidence gathered through the newspaper analysis (Canada, Case #4).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Advertisiment campaign (Gas station stickers)	5. *"Ontario Tories are spending heavily on an advertising campaign designed to persuade the court of public opinion to oppose a carbon tax. If it's so self-evidently unpopular, why are we citizens paying to persuade ourselves? And why must gas stations affix Ford's anti-tax stickers on their gas pumps or face a $10,000 fine if they're out of line?" SOURCE: "Ford's 'axe the tax' play is costing us" — The Globe and Mail — July 5, 2019.*
	6. *"Ford's PCs are actually proposing fines of up to $10,000 per day for not displaying on all gas pumps a sticker that protests the Canadian federal government's carbon tax policies ("Federal Carbon Tax Transparency Act")? What will be next - homeowners facing daily fines for not displaying a Conservative sign on their lawn during the next election?"* SOURCE: "Ford's gas station stickers are ridiculous" — The Toronto Star — April 16, 2019.
MOBILIZATION PRO-POLICY	
Demonstration in Quebec (November 2018)	1. *"Tens of thousands of Quebecers took to the streets this weekend to call for more decisive action on climate change. In Montreal alone, 50,000 took part in the demonstration".* SOURCE: "Scheer out of step in Quebec" — The Toronto Star — November 13, 2018.
	2. *"Seventy per cent of Ontario MPs support carbon pricing and more than 30 Ontario municipalities have declared climate emergencies. In September, Ontarians marched in youth-led climate strikes, including 50,000 in Toronto alone. Yet the voices of youth and many others have been excluded while the government's door stays open to industry lobbyists".* SOURCE: "Ford's steady walk away from climate action" — The Toronto Star — November 29, 2019.
Demonstration in Toronto (September 2019) as part of broader Pan-Canadian pro-climate protests that weekend	3. *"On Friday, thousands of Canadians participated in a movement of rotating strikes and protests inspired by Thunberg. It seems that more and more of us are thinking longer and harder about the environment than we ever have before. In the run-up to the election, pollsters told us that voters ranked the environment higher than ever before as a ballot issue they cared about. What's more, in some polls, it edged out the perennial leading concerns: health care and the economy".* SOURCE: "How much do we care about climate?" — The Toronto Star – September 29, 2019
	4. *"The poll question said this Green New Deal "would aim to move Canada to 100 per cent clean energy by 2030 and make it so Canada produces and consumes the same amount of carbon emissions by 2050," meaning the country would be carbon neutral by mid-century. Seventeen per cent of respondents opposed such a plan. Nine per cent said they were unsure and 13 per cent said they didn't have enough information. Support from respondents inched up to 66 per cent when asked how they feel about the plan if it requires "corporations and the wealthy" to pay higher taxes. However, what is lacking is trust to the government. The disapproval rating of the incumbent government is record high".* SOURCE: "Climate change battle backed; Poll indicates majority of Canadians support a 'Green New Deal' but not the government" — The Toronto Star — April 18, 2019.

Table 3.A7.6: Evidence gathered through the newspaper analysis (Canada, Case #4).

Color-coding legend: Mobilization-related evidence; Disapproval-related evidence (*continued*)

Forms of contention	Description & Source(s)
Demonstration in Toronto (September 2019) as part of broader Pan-Canadian pro-climate protests that weekend	5. *"Take climate change. Here, too, the proportion of Canadians that do not believe climate change results from human activity is marginal. On the left and on the right, there is widespread support for an approach to reducing emissions based on a carbon tax. But the CPC itself remains home to a faction of climate-change deniers who have channelled their stance into a visceral and ultimately cartoonish opposition to carbon pricing. In the last election, two-thirds of Canadian voters supported parties that advocate carbon pricing".* SOURCE: "The end of Trump could be boon for O'Toole" — The Toronto Star — January 16, 2021.
Youth pro-climate demonstrations	6. *"In Canada, young activists will build on that energy during a week of climate action that will culminate on Friday in a series of youth-led strikes across the country. More than 100 events are planned that day, including rallies in Toronto, Vancouver and Montreal, where Thunberg will be in attendance. Canadian youth say their voices are a vital addition to global calls for bold climate policies. Many have already witnessed the effects of climate change - Canada is warming faster than the world average, and the Arctic three times as fast".* SOURCE: "Youth have a striking message: 'We can't be ignored any longer'; As they join worldwide climate protest, young Canadians are seeking new ways to amplify their political voice" — The Toronto Star — September 23, 2019.
Signed pledge	7. *"In the short space of a week, more than 150,000 signed a pledge that commits them to reduce their carbon footprints but also demands more proactive leadership on the issue from governments".* SOURCE: "Scheer out of step in Quebec" — The Toronto Star — November 13, 2018.
Business-backed R&D of climate mitigation initiatives	8. *"Business is not a united front in its opposition. In a report last week, the business-backed C.D. Howe Institute asserted that "Carbon pricing continues to be the most cost-effective option for achieving emissions reductions across the country.""* SOURCE: "David Olive: Natural gas megaproject in B.C. fuels global boom" — The Toronto Star — October 22, 2018. 9. *In Canada, many groups have come out in support of carbon pricing, including the Business Council of Canada, representing 150 leading companies from every major industry and region. It said it "welcomes the federal government's announcement regarding its plan to implement carbon pricing in Canada. For many years we have advocated for carbon pricing as the most efficient means to contribute to achieving Canada's climate change goals."* SOURCE: "Putting a price on carbon is priceless Kawartha Lakes" — The Globe and Mail — August 26, 2019.

APPENDIX 3.8: CATEGORIZATION OF PUBLIC RESPONSES FOR ALL CASES

Based on the scoring and coding procedure in Appendix 3.7, the cases are now categorized as shown in Table 3.A8.1.

Table 3.A8.1: Categorization of cases.

Case no.	Country	Policy name & Year	Imported NVivo Articles [Total]	Reviewed NVivo Articles [Selected]	Relevant NVivo Articles[#] [Coded]	Case score [Mobilization; Disapproval]	Response Category	Brief description
1	Australia	- *Clean Energy Act Australia (2011)* - *Carbon Pricing Mechanism Australia (2012)* - *Carbon Pollution Reduction Scheme (CPRS) - Emissions Trading Scheme Australia (2012)* - *Clean Energy Future Plan Australia (2012)*	1891	217	150	[3;3]	Backlash	Abundant evidence of high intensity of mobilization and high level of disapproval vis-à-vis this policy package.
2	Australia	- *Safeguard Mechanism Australia (2016)*	43	43	17	[1;0]	Acceptance	Presence of general pro-climate policy demonstrations; more public attention was given to the development of this policy and Australia's climate agenda more broadly (in light of the Paris Agreement 2015/ augmenting international pressure)
3	Austria	- *Energy efficiency Act Austria (2014)*	1	1	0	[0;0]	Acceptance	Lack of evidence of mobilization and disapproval mostly due to lack of public awareness about this policy

Table 3.A8.1: Categorization of cases. (*continued*)

Case no.	Country	Policy name & Year	Imported NVivo Articles [Total]	Reviewed NVivo Articles [Selected]	Relevant NVivo Articles[#] [Coded]	Case score [Mobilization; Disapproval]	Response Category	Brief description
4	Canada	- *Federal Carbon Pricing Approach and Backstop System Canada (2017)* - *Greenhouse Gas Pollution Pricing Act Canada (2018)* - *Fuel charge Canada (2019)* - *Federal Greenhouse Gas Offset System Canada (2020)*	305	235	115	[3;2]	Backlash	Abundant evidence of high intensity of mobilization and medium-high level of disapproval vis-à-vis this policy package at the national level. The magnitude of disapproval at the federal level was somewhat dampened by substantial amount of disapproval channeled at the provincial level (NB: out of scope of this study).
5	Canada	- *Regulations Limiting Carbon Dioxide Emissions from Natural Gas-fired Generation of Electricity (SOR/2018-261) Canada (2019)*	10	10	0	[0;0]	Acceptance	Lack of evidence of mobilization and disapproval mostly due to lack of public awareness about this policy
6	Canada	- *Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations Canada (2012)* - *Regulations Amending the Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations: SOR Canada (2018)*	7	7	3	[0;0]	Acceptance	Lack of evidence of mobilization and disapproval: in 2012, partially due to the focus of public debate being placed on the controversial development of major pipelines (e.g., TransCanada, Keystone XL) and in 2018, the policy was overshadowed by the higher-level protests against carbon pricing policy package (Case #4)
7	Switzerland	- *CO2 Compensation Duty for Importers of Fossil Motor Fuels Switzerland (2014)*	3	3	1	[0;0]	Acceptance	Lack of evidence of mobilization and disapproval mostly due to lack of public awareness about this policy

Table 3.A8.1: Categorization of cases. (*continued*)

Case no.	Country	Policy name & Year	Imported NVivo Articles [Total]	Reviewed NVivo Articles [Selected]	Relevant NVivo Articles[#] [Coded]	Case score [Mobilization; Disapproval]	Response Category	Brief description
8	Switzerland	- *CO2 Act Switzerland (2013)*	13	13	3	[1;1]	Acceptance	Certain amount of contention was detected (mostly, from emission-intense industrial players and conservative groups) but generally, given the generally high level of public support of climate goals, the concerned parties eventually focused on working out solutions to adapt to this policy.
9	Chile	- *Coal power phase-out plans Chile (2021)* - *Bill on the prohibition of coal-fired thermoelectric plants Chile (2021)*	9	9	3	[0;0]	Acceptance	This policy went largely unnoticed by mass publics. The loci of debates were mostly at the intra-governmental level (i.e., different priorities across different ministries) and the inter-governmental level (i.e., compensation of the affected localities).
10	Chile	- *Carbon Tax Chile (2014)*	15	15	1	[0;1]	Acceptance	Lack of evidence of mass publics mobilization and slightly present disapproval due to the occasional references to discontent among agri-industrial stakeholders but that did not lead to a wider public mobilization/ spread of discontent

Table 3.A8.1: Categorization of cases. (*continued*)

Case no.	Country	Policy name & Year	Imported NVivo Articles [Total]	Reviewed NVivo Articles [Selected]	Relevant NVivo Articles# [Coded]	Case score [Mobilization; Disapproval]	Response Category	Brief description
11	Colombia	- *Law 1819 creating the National Carbon Tax Colombia (2016)*	13	13	3	[1;1]	Acceptance	Limited evidence of mobilization and disapproval partially associated with the policy (e.g., possible threat of truck protests due to the rise of fuel prices mostly, caused by fluctuations in global energy prices). However, it did not escalate further since the tax threshold was relatively low, which in turn, provoked criticisms from pro-climate organizations and calls for more ambitious climate agenda
12	Colombia	- *Resolution 40715/2019: Wholesale Energy Market with RES*	10	10	0.5	[0;0]	Acceptance	Lack of evidence of mobilization and disapproval mostly due to lack of public awareness about this policy
13	Costa Rica	- *Decree No. 41578 extending the national moratorium on oil exploration and exploitation Costa Rica (2019)*	0	0	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval since the widely supported policy was routinely extended on the same terms*
14	Germany	- *Greenhouse Gas Reduction Quota Germany (2015)*	3	3	0.5	[0;0]	Acceptance	Limited evidence of inter-governmental debates on the level of climate ambition, but overall, this policy went largely unnoticed by mass publics
15	Germany	- *Fuel Emissions Trading Act (BEHG) Germany (2019)*	26	26	1.5	[1;0]	Acceptance	Limited evidence of general support for more ambitious climate policy (with sporadic instances of general pro-climate mobilization) but this was not policy-specific.

Table 3.A8.1: Categorization of cases. (*continued*)

Case no.	Country	Policy name & Year	Imported NVivo Articles [Total]	Reviewed NVivo Articles [Selected]	Relevant NVivo Articles[#] [Coded]	Case score [Mobilization; Disapproval]	Response Category	Brief description
16	Germany	- *German Coal Exit Law (Kohleausstiegsgesetz) Germany (2020)*	742	163	84	[2;2]	Backlash	Sizeable evidence of protests and mobilization regarding the insufficient level of climate ambition in general and specifically, in relation to coal phase-out. The pro-climate mobilization occurred at the national level but at the regional/ local level there were pieces of evidence on more policy-specific contesting claims coming from climate activists (i.e., calls for acceleration of the phase out) and coal communities (claiming their critical dependence on continued coal mining)
17	Denmark	- *Tax Reform 2.0 Denmark (2009)*	26	26	5	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval since the discussion was mostly technical (e.g., risk of carbon leakage) and held at the level of political parties/ministries without broader mass publics involvement.
18	Spain	- *Royal Decree Law 15/2012 on Tax Policy Aimed at Energy Sustainability Spain (2013)*	0	0	0	[0;0]	Acceptance	Lack of evidence of mobilization and disapproval mostly due to lack of public awareness about this policy (largely, because of its highly technical nature)
19	Spain	- *Royal Decree 1565/2010 on the New Tariff Regulation for the Production of Photovoltaic Electrical Energy Spain (2010)*	0	0	0	[0;0]	Acceptance	Lack of evidence of mobilization and disapproval mostly due to lack of public awareness about this policy and its highly technical nature

Table 3.A8.1: Categorization of cases. (*continued*)

Case no.	Country	Policy name & Year	Imported NVivo Articles [Total]	Reviewed NVivo Articles [Selected]	Relevant NVivo Articles[#] [Coded]	Case score [Mobilization; Disapproval]	Response Category	Brief description
20	France	- *Excise Tax on Energy Products France (2011)*	13	13	2	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval the debate mostly concerned the nuances of taxation and redistribution across levels of government (national/departmental/ municipal) without broader mass publics involvement.
21	France	- *Excise Tax on Final Electricity Consumption France (2010)*	0	0	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval mostly due to lack of public awareness about this policy (most likely, because of its highly technical nature)
22	France	- *Carbon Charge Component France (2014)* - *Law on Energy Transition for Green Growth (Energy Transition Law) France (2015)*	430	100	70	[3;3]	Backlash	Abundant evidence of high intensity of mobilization and high level of disapproval vis-à-vis this policy package in the context of a wider public protest against the incumbent government.
23	France	- *Law on the End of Exploration and Exploitation of Hydrocarbons and Diverse Dispositions Related to Energy and the Environment France (2017)*	3	3	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval mostly due to lack of public awareness about this policy (largely because of its highly technical nature)
24	UK	- *Carbon Price Floor United Kingdom (2013)*	8	8	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval mostly due to lack of public awareness about this policy (largely because of its highly technical nature)

Table 3.A8.1: Categorization of cases. (*continued*)

Case no.	Country	Policy name & Year	Imported NVivo Articles [Total]	Reviewed NVivo Articles [Selected]	Relevant NVivo Articles[#] [Coded]	Case score [Mobilization; Disapproval]	Response Category	Brief description
25	UK	- *Finance Act United Kingdom (2020)*	11	11	0.5	[1;1]	Acceptance	Lack of direct evidence indicating public mobilization and disapproval but some evidence of broader pro-climate protests (without immediate relevance to the policy in question)
26	UK	- *Energy Act United Kingdom (2011)*	65	65	2.5	[1;2]	Non-acceptance	Some evidence of public mobilization and disapproval (e.g., energy poverty protests not necessarily provoked by the reform but the politically toxic issue of soaring home energy bills, driven upwards by rising wholesale gas prices and short-sighted energy policy; other forms included die-ins, demonstrations, action groups interventions)
27	UK	- *Energy Act United Kingdom (2013)*	7	7	2	[0;2]	Non-acceptance	Some evidence of noticeable public disapproval mostly due to low level of climate policy ambition (especially regarding the introduced emissions performance standards (EPS) despite the recommendations of the Committee on Climate Change)
28	UK	- *Finance Act United Kingdom (2011)*	13	13	0.5	[0;0]	Acceptance	Limited evidence of disapproval from industry sectors but mostly in the form of pleas for sectoral exemptions from climate change levy (without public mobilization)

Table 3.A8.1: Categorization of cases. (*continued*)

Case no.	Country	Policy name & Year	Imported NVivo Articles [Total]	Reviewed NVivo Articles [Selected]	Relevant NVivo Articles[#] [Coded]	Case score [Mobilization; Disapproval]	Response Category	Brief description
29	UK	- *The Greenhouse Gas Emissions Trading Scheme Order United Kingdom (2020)*	10	10	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval mostly due to lack of public awareness about this policy (largely because of its highly technical nature)
30	Ireland	- *Finance Act 1992 – as amended by Finance Act (No. 1) of 2013 Ireland (2013)*	2	2	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval mostly due to lack of public awareness about this policy (largely because of its highly technical nature)
31	Italy	- *Taxing energy use Italy (2019)*	3	3	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval mostly due to lack of public awareness about this policy (largely because of its highly technical nature)
32	Italy	- *Abrogation of the legal regime applying to nuclear energy production Italy (2011)*	6	6	3	[2;0]	Support	Evidence of sizeable public mobilization in support of abrogation of nuclear energy production (e.g., peaceful protests and mobilized information campaigns)
33	Japan	- *Tax for Climate Change Mitigation Japan (2012)* - *Act Partially Amending the Law on Special Tax Measures (Tax Reform Act) Japan (2012)*	0	0	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval mostly due to lack of public awareness about this policy

Table 3.A8.1: Categorization of cases. (*continued*)

Case no.	Country	Policy name & Year	Imported NVivo Articles [Total]	Reviewed NVivo Articles [Selected]	Relevant NVivo Articles[#] [Coded]	Case score [Mobilization; Disapproval]	Response Category	Brief description
34	Japan	- *Act on Purchase of Renewable Energy Sourced Electricity by Electric Utilities (Law No. 108 of 2011) Japan (2012)*	0	0	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval mostly due to lack of public awareness about this policy
35	Japan	- *Thermal power plant emissions guidelines (2013)*	0	0	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval mostly due to lack of public awareness about this policy
36	South Korea	- *Transportation-Energy-Environment Tax Republic of Korea (2015)*	0	0	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval mostly due to lack of public awareness about this policy
37	South Korea	- *Emissions Trading Scheme Republic of Korea (2015)* - *Domestic Emissions Trading Pilot Scheme for Korean Industries and Power Sector Republic of Korea (2015)*	0	0	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval mostly due to lack of public awareness about this policy
38	Mexico	- *Energy Transition Law Mexico (2015)*	28	28	5	[2;0]	Support	Evidence of public mobilization with the purpose of demanding that legislators approve the policy, endorsed a year before without moving forward. To support the policy, several mass marches were held with various forms of NGOs mediation.
39	Mexico	- *Guidelines establishing and issuing Clean Energy Certificates Mexico (2015)* - *Capacity and power auctions supported by clean energy certificates Mexico (2016)*	13	13	1.5	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval. A general appeal from the business actors/investors for clear rules regarding contracts, compliance with legislation and the fight against uncertainty that this policy brings.

Table 3.A8.1: Categorization of cases. (*continued*)

Case no.	Country	Policy name & Year	Imported NVivo Articles [Total]	Reviewed NVivo Articles [Selected]	Relevant NVivo Articles[#] [Coded]	Case score [Mobilization; Disapproval]	Response Category	Brief description
40	Mexico	- *Carbon Tax Mexico (2014)* - *Law on the Electricity Industry Mexico (2014)*	174	174	60	[3;2]	Backlash	Abundant evidence of intense mobilization and medium-high level of disapproval vis-à-vis this policy package in the context of a wider public protest against the incumbent government mismanaging the fuel prices surge
41	Mexico	- *Emissions Trading System Mexico (2019)* - *Emissions Trading Scheme Pilot Project Mexico (2020)*	13	13	1	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval mostly due to lack of public awareness about this policy
42	Poland	- *Energy efficiency Law Poland (2011)*	0	0	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval
43	Sweden	- *Act on Electricity certificates: Act No. 2011:1200 and Regulation on Electricity certificates – Regulation No. 2011:1480 Sweden (2011)*	0	0	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval
44	Sweden	- *Government Bill (2009/2010: 172): Nuclear Power opening the way for a generation change & Government Bill (2009/2010:173): Nuclear Power Increased Liability Sweden (2011)*	0	0	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval
45	Sweden	- *An Integrated Climate and Energy Policy Sweden (2009)*	0	0	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval
46	Turkey	- *Electricity Consumption Tax Turkey (2019)*	0	0	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval

Table 3.A8.1: Categorization of cases. (*continued*)

Case no.	Country		Policy name & Year	Imported NVivo Articles [Total]	Reviewed NVivo Articles [Selected]	Relevant NVivo Articles[#] [Coded]	Case score [Mobilization; Disapproval]	Response Category	Brief description
47	Turkey	-	*Emissions Trading Scheme Turkey (2011)*	0	0	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval
48	United States	-	*Affordable Clean Energy (ACE) United States (2019)*	2	2	1	[2;2]	Backlash	Some evidence of sizeable public mobilization and disapproval in the form of protest against repealing the previous policy with higher environmental standards and higher climate ambition
49	United States	-	*Clean Power Plan United States of America (2014)*	116	116	22	[2;0]	Support	Sizeable evidence of public support for the policy in the form of protests against its reversal by the Trump Administration later on. Occasional attempts of coal lobby to contest this policy in the court but did not stir a sizeable public reaction
50	United States	-	*Carbon Pollution Standard (CPS) United States of America (2012)*	1	1	0	[0;0]	Acceptance	Lack of evidence of public mobilization and disapproval

*For cases without newspaper results, comments are based on reading of wider literature and/or personal communication with country-specific policy experts, as marked.
#NB: 0.5 denotes article partially but not entirely within the relevant scope.

CHAPTER IV

Appendix 4.1. Data sources for conditions

This Appendix provides an overview of the data drawn on for scoring each condition, following the procedure in Section 3.2, especially Figure 4.2.

A1.1 Socio-political polarization

Mandatory steps:	
1. Expert interviews	1. 3-5 expert interviews (varies per policy package)
2. Media articles	2. Keyword search ["polari*" and translations] through the archived media data obtained from prior systematic search (Anisimova & Patterson, 2024)
3. Secondary datasets	3. Variable: 'Party Polarization' index in the Sustainable Governance Indicators database (https://www.sgi-network.org). 4. Rationale: Consistent coding; full coverage (each country report contains section on this with a score; except for the new members: Colombia & Costa Rica – for these two cases the score was deduced based on the coding procedures for this SGI indicator). 5. Interpretation/translation: 1. 0-3 (extremely high) → QCA category: fully in set; 2. 3-5 (medium high) → QCA category: mostly in set; 3. 6-8 (medium low) → QCA category: mostly out of set; 4. 9-10 (extremely low) → QCA category: fully out of set.
Discretionary steps:	*Substantial reliable and specific data available. No further data collection required.*
4. Academic literature	N/A
5. Grey literature	N/A
6. Policy documents	N/A

Scoring (i.e., weighing up all available evidence, also considering reliability/specificity of data):

Fully in set ***(score: 1)***	**Mostly in set** ***(score: 0.67)***	**Mostly out of set** ***(score: 0.33)***	**Fully out of set** ***(score: 0)***
Party polarization is entrenched and causes major difficulties for government seeking to pass legislation (e.g., deadlock, intense criticism) and deep polarization is also apparent in society.	Party polarization is persistent and causes difficulties for government seeking to pass legislation but agreement is sometimes found, and notable polarization is also apparent in society.	Party polarization can occur but ebbs and flows and areas of agreements are regularly found, and polarization is somewhat apparent in society.	Party polarization is not a significant issue, and polarization is not prominent in society.

A1.2 Climate change concern

Mandatory steps:	
1. Expert interviews	6. 3-5 expert interviews (varies per policy package)
2. Media articles	7. Keyword search ["climate concern*" OR "priorit*" OR "poll"] through the archived media data obtained from prior systematic search (Anisimova & Patterson, 2024)
3. Secondary datasets	8. Variable: Opinion polls rating 9. Rationale: It is hard to obtain reliable evidence in a form of a uniform indicator, therefore we resorted to data from opinion polls per country. In doing so, we account for the timeframe of implementation for each policy package individually and look for the evidence within this period to mitigate the dynamic nature of public opinion and possible ad-hoc prioritization of grievances by mass publics. 10. Interpretation/translation: 1. Top 3 (extremely high) → QCA category: fully in set; 2. Top 4-6 (medium high) → QCA category: mostly in set; 3. Top 7-10 (medium low) → QCA category: mostly out of set; 4. Outside of Top-10 (extremely low) → QCA category: fully out of set.
Discretionary steps:	*Further data collection required.*
4. Academic literature	11. Not used as not the most efficient type for condition.
5. Grey literature	12. Reports containing relevant opinion polls on public grievances/issues of concern during the time period relevant to policy contestation (availability and source varies per country).
6. Policy documents	13. Not used as not the most appropriate type for condition.

Scoring (i.e., weighing up all available evidence, also considering reliability/specificity of data):

Condition	**Anchor points**			
	Fully in set ***(score: 1)***	**Mostly in set** ***(score: 0.67)***	**Mostly out of set** ***(score: 0.33)***	**Fully out of set** ***(score: 0)***
Climate change concern	High climate change concern (within the top 3 common public concerns sustained over time).	Moderate climate change concern (within the top 10 common public concerns sometimes gaining moderate traction).	Low climate change concern (identifiable within the top 10 common public concerns but with low traction).	Very low climate change concern (not within top 10 common public concerns).

A1.3 Policy demandingness

Mandatory steps:	
1. Expert interviews	14. 3-5 expert interviews (varies per policy package)
2. Media articles	15. Keyword search ["demand*" OR "stringen*" OR "cost*"] through the archived media data obtained from prior systematic search (Anisimova & Patterson, 2024)
3. Secondary datasets	16. Variable: 'Policy Stringency' index in the OECD Climate Actions and Policies Measurement Framework (https://oe.cd/dx/capmf). 17. Rationale: the most consistent and developed index on policy stringency to date from a structured and harmonized climate mitigation policy database. 18. Interpretation/translation: 1. 9-10 (extremely high) → QCA category: fully in set; 2. 6-8 (medium high) → QCA category: mostly in set; 3. 4-5 (medium low) → QCA category: mostly out of set; 4. 0-3 (extremely low) → QCA category: fully out of set.
Discretionary steps:	*Substantial reliable and specific data available. No further data collection required.*
4. Academic literature	19. N/A
5. Grey literature	20. N/A
6. Policy documents	21. N/A

Scoring (i.e., weighing up all available evidence, also considering reliability/specificity of data):

Condition	**Anchor points**			
	Fully in set ***(score: 1)***	**Mostly in set** ***(score: 0.67)***	**Mostly out of set** ***(score: 0.33)***	**Fully out of set** ***(score: 0)***
Demandingness	Policy is understood by target groups and wider audiences to impose very high costs (e.g., economic, behavioral, symbolic), even if compensated or applied gradually.	Policy is understood by target groups and wider audiences to impose significant costs (e.g., economic, behavioral, symbolic), which are bearable with compensation or other design features.	Policy is understood by target groups and wider audiences to impose some costs (e.g., economic, behavioral, symbolic), but relatively low.	Policy is not understood by target groups and wider audiences to impose notable costs.

A1.4 Unfairness

Mandatory steps:	
1. Expert interviews	22. 3-5 expert interviews (varies per policy package)
2. Media articles	23. Keyword search [“*fair*” OR “*just*” OR “redistribut*”] through the archived media data obtained from prior systematic search (Anisimova & Patterson, 2024)
3. Secondary datasets	24. N/A
Discretionary steps:	*Further data collection required.*
4. Academic literature	25. Keyword search [“Policy name” AND “*fair*” OR “*just*” OR “redistribut*”] – selection and screening of up to 10 academic articles on Google Scholar
5. Grey literature	26. Policy reports
6. Policy documents	27. We examine policy design features of each policy package as stated in the official policy documents to identify attention to progressive and redistributive measures. 28. Interpretation/translation: 1. Considerations of fairness in policy design are absent/completely ineffective (extremely low) → QCA category: fully in set; 2. Policy contains some elements of fairness in its design, however, it has limited effect due to exogenous and/or indogenous factors (medium low) → → QCA category: mostly in set; 3. Policy is perceived as mostly fair as it is purposefully designed to ensure redistribution. Occasional inefficiencies take place, some marginal room for improvement (medium high) → QCA category: mostly out of set; 4. Policy design is perceived as extremely fair due to its build-in considerations of fairness: via policy measures application and/or via robust & effective redistribution mechanisms put in place (extremely high) → QCA category: fully out of set.

Scoring (i.e., weighing up all available evidence, also considering reliability/specificity of data):

Condition	**Anchor points**			
	Fully in set ***(score: 1)***	**Mostly in set** ***(score: 0.67)***	**Mostly out of set** ***(score: 0.33)***	**Fully out of set** ***(score: 0)***
Unfairness	Policy is understood by target groups and wider audiences to be deeply unfair and attention to fairness is absent in policy design.	Policy is understood by target groups and wider audiences to be somewhat unfair with limited attention to fairness in policy design.	Policy is understood by target groups and wider audiences to be only a little unfair with moderate attention to fairness in policy design.	Policy is understood by target groups and wider audiences to be broadly fair with significant attention to fairness in policy design.

A1.5 Information provision

Mandatory steps:	
1. Expert interviews	29. 3-5 expert interviews (varies per policy package)
2. Media articles	30. Keyword search ["inform*" AND "campaign*"] through the archived media data obtained from prior systematic search (Anisimova & Patterson, 2024)
3. Secondary datasets	31. N/A
Discretionary steps:	*Further data collection required*
4. Academic literature	32. Keyword search ["Policy name" AND "inform*" AND "campaign*"] – selection and screening of up to 10 academic articles on Google Scholar
5. Grey literature	33. Policy reports regarding government transparency and accountability vis-à-vis policy in question
6. Policy documents	34. Interpretation/translation: 1. Lack of any dedicated attention to information provision to policy recipients about the policy by government (extremely low) → QCA category: fully out of set; 2. Some limited dedicated attention to information provision to policy recipients about the policy by government. For example, fragmented, questionable credibility, notable incompleteness, and/or major bias likely to affect the understanding of policy recipients (medium low) → QCA category: mostly out of set; 3. Notable dedicated attention to information provision to policy recipients about the policy by government. For example, information is relatively coherent, credible, and unbiased. However, remains limited in important ways such as insufficiently sustained over time, some important gaps in targeting remain, or limited impartiality) (medium high) → QCA category: mostly in set; 4. Robust dedicated attention to information provision to policy recipients about the policy by government. For example, information is coherent, credible, and unbiased. It is also comprehensive in terms of being sustained over a relevant time period, information is accessible to policy recipients, and allowed for open debate (extremely high) → QCA category: fully in set.

Scoring (i.e., weighing up all available evidence, also considering reliability/specificity of data):

Condition	**Anchor points**			
	Fully in set ***(score: 1)***	**Mostly in set** ***(score: 0.67)***	**Mostly out of set** ***(score: 0.33)***	**Fully out of set** ***(score: 0)***
Information provision	Extensive information provision to target groups about the policy by government (e.g., credible, comprehensive, sustained).	Notable information provision to target groups about the policy by government (e.g., coherent, but perhaps only once-off or limited outreach).	Some limited information provision to target groups about the policy by government (e.g., fragmented, patchy).	Lacking information provision to target groups about the policy by government.

APPENDIX 4.2. DATA CODING PROCEDURE: ILLUSTRATIVE EXAMPLE

Policy / Condition	POLAR	CONCERN	DEMAND	UNFAIR	INFO
Energy Efficiency Act Austria (2014)	0,33	0,67	0,67	0,33	0,67

Condition 1. Socio-political polarization:

Sources	Evidence	Source	Interpreted QCA Score
Expert interviews	1) "I mean, on polarization, I would say, of course, we have a full spectrum of political parties in Austria. <…> But in Austria we are not as polarized as in other countries (US or even Germany). That's my assessment, my personal view. I don't think there is a sizeable percentage of the population that is outright climate skeptic or overall, belongs to the extremes of political spectrum"	Int19	0,33
	2) "I think the issue of climate policy itself is not polarizing as I think there's quite large agreement across political divides (maybe aside from the extremes) but that climate <change> is an issue and climate policy needs to be passed, that we need to reach our climate targets. There's a bit of debate about which climate targets, but I think overall, I think everyone agrees the climate policy is an important policy issue. And that needs to be done. <…> I think there is a lot of disagreement about debated topics that surround aspects like transport, aspects of heating or carbon pricing. So, I think it's quite unclear which pathway needs to be taken to reach the climate targets. The means are debated. Some are less controversial – like this policy. Some of them are not controversial at all. So, I think that there are elements that the wide spectrum of the population agrees on, and that is the necessity to do something, but not necessarily on how to get there and which types of instruments to use."	Int24	
Media articles	n/a	n/a	n/a
Secondary datasets	Right-wing populist parties, especially the Freedom Party of Austria (FPÖ) take advantage of social and economic anxieties <…>. Mainstream political parties have sometimes been reluctant to resist.	SGI Report Austria (2014, 2015)	0,33
Academic literature	n/a	n/a	n/a
Grey literature	n/a	n/a	n/a
Policy Documents	n/a	n/a	n/a
	CALIBRATED SCORE FOR CONDITION #1		0,33

Condition 2. Climate Change Concern:

Sources	Evidence	Source	Interpreted QCA Score
Expert Interviews	1) "I mean, of course, a bit earlier we had the financial crisis and the Euro crisis following that 2008, 2009, that was, of course, a big topic. More recently, we also had issues such the corona pandemic when a lot of support grants were provided and the idea was that they should be green, but there was also a lot of assistance that was also not 100% climate-proofed including tax breaks for companies with excessive energy consumption".	Int19	0,67
	2) "It depends on the moment you ask me…Back in 2014, around that time, we dealt with the aftermath of financial crisis…since then, we've run through a number of major crises including the migration question around that time. Later, around 2018/2019, environment and climate issues were probably on top of the list or very close to it. And now, of course, we have covered energy inflation and certain wars both in Europe and the Middle East. So, you know, I think it's very difficult to say at what rank they are because there's a lot more pressing crises that are present. Yeah, I think climate probably is one that ranges highly (especially around Paris <Agreement>). If we had to take an average, I think it would probably be around fourth or fifth most important topics all the time. And I think it's pretty stable there".	Int24	
Media articles	n/a	n/a	n/a
Secondary datasets	n/a	n/a	n/a
Academic literature	n/a	n/a	n/a
Grey literature	In 2009, the global economy suffered shrinkage for the first time in many decades, caused by the international financial crisis. The Austrian economy did not escape the downward trend and experienced a negative growth rate of -1.9% in 2009. This was the only decrease in GDP in current national currency in a year-on-year comparison since 1976. As a small open economy, Austria had entered a recession caused primarily by falling exports, reflecting the collapse of world trade and shrinking investment. The aftermath of this crisis was felt for nearly a decade. To pursue an important "green agenda", the Energy Efficiency Act was implemented, among others, an energy efficiency obligation system for energy suppliers, mandatory energy management systems or regular energy audits for large companies and renovation of federal buildings.	Austrian Energy Agency (2021). Energy Efficiency Trends and Policies in Austria.	0,67
Policy Documents	n/a	n/a	n/a
	CALIBRATED SCORE FOR CONDITION #2		0,67

Condition 3. Policy demandingness:

Sources	Evidence	Source	Interpreted QCA Score
Expert interviews	1) "I think what we're not seeing the public raising concerns <about policy demandingness> on their own behalf. What we're seeing is politicians cautioning, referring to the costs for the population at large and steering the debate".	Int19	0,33
Media articles	n/a	n/a	n/a
Secondary datasets	Policy Stringency Index (OECD Climate Actions and Policies Measurement Framework): 8	Policy Stringency Index (OECD CAPMF)	0,67
Academic literature	n/a	n/a	n/a
Grey Literature	1) Under the new law, the public sector will act as a role model for energy efficiency: The central government will, for example, between 1 January 2014 and 31 December 2020 be required to achieve an annual renovation quota of 3% of buildings in its ownership or use by applying measures of energy saving contracting, the law and then focus on specific duties and challenges for energy energy management and thermal rehabilitation. Obligations imposed on all undertakings under the EEA will vary according to the size of the undertakings: Companies incorporated in Austria with more than 249 employees and a turnover of more than 50 Mio or total assets of more than 43 Mio will have to conduct an external energy audit every four years or, in the alternative, to set up a (certified) energy or environmental management system. Smaller companies may conduct energy audits and document and/or report the results thereof. 2) In der Praxis bestehen noch erhebliche Unklarheiten zur Anrechenbarkeit von Energieeffizienzmaßnahmen, zumal die für die Überwachung der Umsetzung zuständige Nationale Energieeffizienz-Monitoringstelle (NEEM) gerade erst aufgebaut wird. Jedenfalls werden Energieeffizienzmaßnahmen von verpflichteten Unternehmen bei sich selbst oder bei Dritten gesetzt bzw. initiiert werden können.	1) Austrian Energy Agency (2021). Energy Efficiency Trends and Policies in Austria. 2) Franz Josef Arztmann (2015) "Bundes-Energieeffizienzgesetz – können Kosten der Energielieferanten auf Kunden überwälzt werden?". Baker & McKenzie International. 3) Lisa Neuherz (2016). "Das österreichische Bundes-Energieeffizienzgesetz als Dilemma für Energielieferanten: langfristige Auswirkungen und mögliche Lösungsvorschläge" Karl-Franzens- Universität Graz.	0,67

Condition 3. Policy demandingness: *(continued)*

Sources	Evidence	Source	Interpreted QCA Score
	3) Hat Österreich dieses Ziel, dass das Energieeffizienzgesetz vorschreibt in der letzten Periode quasi deutlich übererfüllt. Es sind mehr Maßnahmen gemeldet worden, als eigentlich erwartet sag ich einmal oder vorgeschrieben. Jetzt könnte es sein, dass der Gesetzgeber darauf reagiert. Also, diese 0,6 Prozent waren sehr leicht zu erfüllen und jetzt könnte das Bundesministerium oder vielleicht noch eine Ebene höher, die EU, wenn sie das sehen, quasi, Österreich hat das relativ leicht erfüllt …was könnte da passieren?		
Policy documents	Clearly stated measures and requirements in the bill (in its entirety)	Bundes-Energieeffizienzgesetz – EEffG (2014)	0,67
		CALIBRATED SCORE FOR CONDITION #3	0,67

Condition 4. Unfairness:

Sources	Evidence	Source	Interpreted QCA Score
Expert interviews	1) "My assumption would be that <redistribution mechanisms> is not something that is widely, discussed and widely reflected on. There is discussion, of course, in quality newspapers, in the media., there are some suggestions by politicians from, for instance, the Social Democratic Party suggesting that these things have to be taken into account. And the measures that are agreed, they sometimes have also the social dimension in focus. So, for instance, the level of subsidies that you could get for replacing your heating system, depends on your income level. But for instance, take the climate bonus. So, you know, as a corollary to the carbon pricing that I mentioned, there's a climate bonus that is paid to every person living in Austria. It's not even for citizens but for residents (you have to live in Austria for 183 days, half of the year), and then you get it. And there is no social dimension to it. You get it based on where you live. And where you live basically is a kind of proxy for how good you can access public transport. So if you live in a major city, you get less. If you live in the countryside in a very remote area where there is poor public transport, then you get more. There is no income dimension to it. It's purely based on your postcode. And this is sometimes criticized, but I don't see a general outcry or a public discussion around this. I think it's restricted to, you know, some press work of some parties, plus some coverage in the media where an economist or an analyst will say, you know, this system basically is not really balanced socially speaking"	1) Int19	0,33
	2) "I mean, while in practice it is very well accounted for, I don't think that the government will ever be perceived as a fair player in that sense. I think it won't be seen as that because the government in essence, will try to implement the policies that are important to the governing parties. So we can see with every government law that we pass, we can sort of see that the governing party will do. So with every reform, people will criticize the reform, the opposition will, certain parts of the media will. And so in this case, the way that they split up this climate bonus that wasn't sort of done by social aspects, but rather regional aspects. So if you lived in a rural area, you got more money than if you live in the city, which is kind of counterintuitive because normally people in cities tend to have lower carbon emissions than people who live in the countryside. So lots of the debate after this reform focused on the question, how should this climate bonus be distributed."	2) Int24	
Media articles	n/a	n/a	n/a
Secondary datasets	n/a	n/a	n/a

Condition 4. Unfairness: *(continued)*

Sources	Evidence	Source	Interpreted QCA Score
Academic literature	Article 3 of the EED leaves the choice by the Member States whether to set an indicative final or primary energy consumption target, a final or primary energy savings target or an energy intensity target. Austria opted for a final energy consumption target which was also communicated to the European Commission. How to reach the final energy consumption target is illustrated in the National Energy Efficiency Action Plan. The provisions do account for redistribution mechanisms to some extent only.	Wagner, P. (2019) "The Implementation of Energy Efficiency in Austria" TU-Wien.	0,33
Grey literature	In diesem Zusammenhang ist auch der Umstand von besonderer Bedeutung, dass die zu setzenden Energieeffizienzmaßnahmen in zahlreichen Fällen nicht bei den eigenen Kunden, sondern bei Dritten zu setzen sind. So müssen etwa 40% der Maßnahmen bei privaten Haushalten gesetzt bzw. initiiert werden, selbst wenn das Unternehmen gar keine Privathaushalte beliefert. Ohne Zukauf von Dienstleistungen zur Maßnahmensetzung lässt sich die Verpflichtung für viele Bundes-Energieeffizienzgesetz – können Kosten der Energielieferanten auf Kunden überwälzt werden? Energielieferanten nur sehr schwer realisieren, wenn der direkte Kontakt mit diesem Kundensegment fehlt. Können Kosten überwälzt werden? Ob nun Energieeffizienzmaßnahmen selbst gesetzt bzw. bei Energiedienstleistern (über Ausschreibungen) in Auftrag gegeben werden, oder gleich ganz oder teilweise erhöhte Ausgleichszahlungen in Kauf genommen werden ist letztendlich eine betriebswirtschaftliche Entscheidung. Mit besonderem Interesse verfolgen Energielieferanten jedenfalls die Frage, ob bzw. inwieweit die mit der Setzung von Energieeffizienzmaßnahmen verbundenen Aufwendungen bzw. die zu zahlenden Ausgleichsbeträge an Kunden überwälzt werden können. 2) If energy suppliers fail to provide proof for the required energy efficiency measures compensation payments in the amount of 20 cEUR per kWh become payable. The Austrian regulator E-Control will be competent to adjust the exact amount of the compensation payments each year on the basis of this minimum amount (which may not be reduced), thereby taking into account the average marginal costs. Furthermore, depending on the nature of an offence committed by an energy supplier, EEA provides for administrative fines ranging from EUR 10.000 to EUR 100.000: Fines of up to EUR 10.000 may for instance be imposed if an energy supplier does not comply with its reporting obligations vis-à-vis the monitoring body or fails to provide the Federal Ministry for Science, Research and Economy with required statistical data. Fines of up to EUR 20.000 may become due for the provision of false information to the monitoring body. The failure to set up an advice and counselling centre for customers may trigger a fine of up to EUR 50.000. Most importantly, fines in the amount of up to EUR 100.000 may be imposed on suppliers that fail to fulfil their individual energy saving obligation or either do not initiate tender proceedings or make compensation payments in time.	1) Franz Josef Arztmann (2015) "Bundes-Energieeffizienzgesetz – können Kosten der Energielieferanten auf Kunden überwälzt werden?". Baker & McKenzie International. 2) Christian Mayer (2014). "The 2014 Energy Efficiency Act: New Challenges for Suppliers". NYC Bar Association.	0,33

Condition 4. Unfairness: *(continued)*

Sources	Evidence	Source	Interpreted QCA Score
Policy documents	Ausgleichsbetrag provisions (Teil 6)	Bundes-Energieeffizienzgesetz (2014)	0,67
		CALIBRATED SCORE FOR CONDITION #4	0,33

Condition 5. Information provision:

Sources	Evidence	Source	Interpreted QCA Score
Expert interviews	1) "I mean, there is definitely information provided. We have a special challenge in Austria <…> it was also discussed, widely after our former chancellor was forced to resign. There's a lot of advertising by the government, and there's also a lot of sort of public consulting and a lot of money is spent on this. And the suspicion is that the intent is to buy influence, that you get better press coverage if you spend more money on advertising and information campaigns. Politicians want good press coverage. So they think they have to spend a lot of money on advertising. So, for instance, there has been a media campaign and probably this is true for several initiatives, but definitely, for instance, for this climate bonus. There could be many ways of educating and not just making advertisements in newspapers and on billboards but that is happening. <…> There are other initiatives, but the question is also, you know, how many people are you reaching? We have for instance, a climate dialogue process in our ministry, which is open to stakeholders and also the public at large. But they're sort of limited seating, so probably like 500 people could attend. It happens four times a year. It's basically discussing things more strategically, conceptually. It's not like the Citizens Assembly. So there is no mandate to develop recommendations and to submit them then to government. But basically it's a discussion and I'm sure that they will also or that they also cover these issues. But it's not targeting a meaningful percentage"	1) Int19 2) Int24 3) Int3	0,67

Condition 5. Information provision: *(continued)*

Sources	Evidence	Source	Interpreted QCA Score
	2) "I mean, of course, I mean, the law was on the government website for months and months. There were press meetings about it. There was a press conference about it. But it just didn't generate this media frenzy. And I think in Germany, we saw that this media frenzy was far too blown out for what exactly it was. And the debate that followed was quite horrible, to be honest. Because it was so far away from facts and actual policy making. And I'm not sure whether it's a question of transparency. I think fundamentally the government will come up with a law, then it publishes it, and then there's time to react to it. And there wasn't much reaction to it. Whether that equates to a lack of salience - I don't think so." 3) "I remember at least one campaign that was published. It was a newspaper campaign, and also it was in several non-state owned electronic media which was forcing the argument. You know, it was a more economic liberal conservative party, saying that we cannot compete with others, but we can compete against the losses. And with that element, we get efficiency. While having the same standard. I think it was like a slogan "you can live up to what you did before and there's nothing you have to withdraw from, but you just be more effective". Kind of optimizing – this was the message for the industry to remain competitive".		
Media articles	n/a	n/a	n/a
Secondary datasets	n/a	n/a	n/a
Academic literature	1) Each and Everyone´s Responsibility – Education and Awareness-raising for a Sustainable Future This strategy wants all citizens to actively participate in the energy system. The demand for climate-friendly and energy efficient products, services and technologies can be enhanced by increasing the awareness and thus also stimulating investments. By raising awareness, it is possible to bring the importance of climate protection and energy efficiency as well as how to deal with energy resources to the public. The success of the measures of the climate and energy strategy strongly depends on the fact whether people identify with them or not. Hence, it is vital to make sure that consumers are informed and included in the processes of reaching the targets and are motivated to make personal contributions.	Wagner, P. (2019) "The Implementation of Energy Efficiency in Austria" TU-Wien.	0,33

Condition 5. Information provision: *(continued)*

Sources	Evidence	Source	Interpreted QCA Score
Grey literature	1) As an additional obligation, energy suppliers with more than 49 employees and a turnover or total assets of more than EUR 10 Mio will need to set up an advice and counselling centre in order to inform their customers about energy efficiency, energy consumption, energy cost and energy poverty. 2) More than 40 Austrian organisations offer energy efficiency information services for consumers. The most prominent of these is the Austrian Energy Agency. Many organisations are active only at the state or municipal levels. Austrian utilities also run information campaigns to encourage responsible energy use. The most important and innovative nation-wide campaign is klimaaktiv, which is the Austrian government's climate change information and grant programme. The programme is overseen by the Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, and managed by the Austrian Energy Agency. The aim of the programme is to support energy efficiency and increased use of renewables in all sectors of the economy, through direct grant support and accompanying measures, such as information and advice. The sub-programmes of klimaaktiv are designed to support Austria's grant, regulation, and fiscal measures and to give targeted incentives for the use of climate impact-reducing products. klimaaktiv is an innovative add-on to common instruments, introducing target-group oriented programmes in the areas construction and living, mobility, company policies, electricity saving and renewable energy sources. By following a systematic approach, klimaaktiv is determined to effect a breakthrough in the use of climate-friendly technologies and services for increased energy-efficiency and of renewable energy sources, as well as to accrue their market shares. klimaaktiv programmes develop technological and organisational solutions able to compete on the market, take care of innovative quality standards and promote training of all relevant groups. Implementation of the klimaaktiv programmes must be accomplished within set time limits and results in concrete measurable targets. The aim is to widely introduce energy efficient and climatefriendly technologies and services in the fields of construction and living, mobility, company policies, electricity saving and renewable energy sources.	1) Christian Mayer (2014). "The 2014 Energy Efficiency Act: New Challenges for Suppliers". NYC Bar Association. 2) Austrian Energy Agency (2021). Energy Efficiency Trends and Policies in Austria.	0,67

Condition 5. Information provision: *(continued)*

Sources	Evidence	Source	Interpreted QCA Score
Policy documents	Verbreitung von Informationen für Marktteilnehmer und Bürger § 13. (1) Der Bund hat die Unternehmen gemäß § 9 und § 10 und alle einschlägigen Marktakteure auf geeignete Weise über ihre Pflichten, über verfügbare Energieeffizienzmechanismen, mögliche Energieeffizienzfördermechanismen und die zur Erreichung des Energieeffizienzrichtwertes festgelegten finanziellen und rechtlichen Rahmenbedingungen umfassend zu informieren. (2) Der Bund hat Energiedienstleistern und Unternehmen, die Energiedienstleistungen in Anspruch nehmen oder Energieeffizienzmaßnahmen setzen, Kriterien für Musterverträge zur Verfügung zu stellen oder zugänglich zu machen. (3) Der Bund hat Programme zu entwickeln, die kleine und mittlere Unternehmen und Haushalte dazu ermutigen, sich Energieaudits oder Energieberatungen zu unterziehen und die Verfügbarkeit von hochwertigen Energieaudits für alle Endkunden zu fördern.	Bundes-Energieeffizienz-gesetz (2014)	0,67
	CALIBRATED SCORE FOR CONDITION #5		0,67

APPENDIX 4.3. LIST OF INTERVIEW PARTICIPANTS

No.	Sectoral role	Country	Policy	Duration (min)
1	Policymaker	Costa Rica	Decree No. 41578 extending the national moratorium on oil exploration and exploitation (2019)	42
2	Policy analyst	USA	Clean Power Plan (2014); Affordable Clean Energy (2019)	49
3	Policymaker	Austria	Energy efficiency Act (2014)	78
4	Policy consultant	France	Carbon Charge Component (2014)	40
5	Policy consultant	Canada	Federal Carbon Pricing Approach and Backstop System (2018)	55
6	Policy analyst	USA	Affordable Clean Energy (ACE) (2019); Clean Power Plan (2014)	48
7	Policymaker	Chile	Carbon Tax (2014); Coal power phase-out plans (2021)	49
8	Policymaker	Mexico	Carbon Tax (2014); Energy Transition Law (2015); Emissions Trading System (2019); Guidelines establishing and issuing Clean Energy Certificates (2015)	46
9	Policy analyst	Mexico	Carbon Tax (2014); Energy Transition Law (2015); Emissions Trading System (2019)	46
10	Academia, policy analyst	Italy	Abrogation of the legal regime applying to nuclear energy production (2011)	45
11	Policymaker	Canada	Federal Carbon Pricing Approach and Backstop System (2018)	32
12	Academia, policy analyst	Japan	Tax for Climate Change Mitigation (2012)	48
13	Academia	Japan	Tax for Climate Change Mitigation (2012)	50
14	Policy consultant	Turkey	Emissions Trading Scheme (2011)	49
15	Policy consultant	Mexico	Carbon Tax (2014); Energy Transition Law (2015); Emissions Trading System (2019)	45
16	Policymaker	France	Carbon Charge Component (2014)	33
17	Policy analyst	Korea	Emissions Trading Scheme (2015); Transportation-Energy-Environment Tax (2015)	35
18	Policy consultant	Turkey	Emissions Trading Scheme (2011)	42
19	Policymaker	Austria	Energy efficiency Act (2014)	30
20	Academia, policy consultant	Mexico	Carbon Tax (2014); Energy Transition Law (2015); Emissions Trading System (2019)	46
21	Academia, policy consultant	Japan	Tax for Climate Change Mitigation (2012)	40
22	Academia, policy consultant	France	Carbon Charge Component (2014)	42

No.	Sectoral role	Country	Policy	Duration (min)
23	Policymaker	Mexico	Carbon Tax (2014); Energy Transition Law (2015); Emissions Trading System (2019); Guidelines establishing and issuing Clean Energy Certificates (2015)	53
24	Policymaker	Austria	Energy efficiency Act (2014)	40
25	Academia, policy consultant	Germany	Coal Exit Law (Kohleausstiegsgesetz) (2020); Greenhouse Gas Reduction Quota (2015)	40
26	Policy consultant	Colombia	Law 1819 creating the National Carbon Tax (2016)	40
27	Policy consultant	Colombia	Law 1819 creating the National Carbon Tax (2016)	38
28	Policy consultant	Colombia	Law 1819 creating the National Carbon Tax (2016)	50
29	Policy consultant	Turkey	Emissions Trading Scheme (2011)	43
30	Policy consultant	Turkey	Emissions Trading Scheme (2011)	43
31	Policy consultant	Turkey	Emissions Trading Scheme (2011)	43
32	Policymaker	France	Carbon Charge Component (2014); Law on the End of Exploration and Exploitation of Hydrocarbons and Diverse Dispositions Related to Energy and the Environment (2017)	44
33	Academia, policy consultant	Switzerland	CO_2 Act (2013)	59
34	Academia, policy analyst	France	Carbon Charge Component (2014)	57
35	Academia, policy consultant	Canada	Federal Carbon Pricing Approach and Backstop System (2018)	55
36	Policymaker	Colombia	Law 1819 creating the National Carbon Tax (2016)	50
37	Academia, policy analyst	Italy	Abrogation of the legal regime applying to nuclear energy production (2011)	43
38	Academia, policy analyst	Korea	Emissions Trading Scheme (2015); Transportation-Energy-Environment Tax (2015)	48
39	Policy analyst	France	Carbon Charge Component (2014); Law on the End of Exploration and Exploitation of Hydrocarbons and Diverse Dispositions Related to Energy and the Environment (2017)	45
40	Academia, policy analyst	Switzerland	CO_2 Act (2013)	43
41	Policy analyst	Canada	Federal Carbon Pricing Approach and Backstop System (2018)	47
42	Policymaker, policy analyst	Colombia	Law 1819 creating the National Carbon Tax (2016)	65
43	Policymaker	Switzerland	CO_2 Act (2013)	42
44	Academia, policy analyst	Chile	Carbon Tax (2014); Coal power phase-out plans (2021)	43

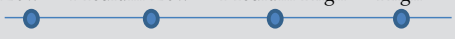
No.	Sectoral role	Country	Policy	Duration (min)
45	Policy consultant	Canada	Federal Carbon Pricing Approach and Backstop System (2018)	40
46	Academia, policy consultant	Chile	Carbon Tax (2014); Coal power phase-out plans (2021)	68
47	Policymaker	Germany	Coal Exit Law (Kohleausstiegsgesetz) (2020)	20
48	Policymaker, policy analyst	Costa Rica	Decree No. 41578 extending the national moratorium on oil exploration and exploitation (2019)	61
49	Policy consultant	Italy	Abrogation of the legal regime applying to nuclear energy production (2011)	53
50	Academia, policy analyst	Germany	Coal Exit Law (Kohleausstiegsgesetz) (2020); Fuel Emissions Trading Act (BEHG) (2019)	53
51	Policymaker	Chile	Carbon Tax (2014); Coal power phase-out plans (2021)	43
52	Academia, policy analyst	Australia	Clean Energy Act (2011); Safeguard Mechanism (2016)	47
53	Policymaker	Australia	Clean Energy Act (2011); Safeguard Mechanism (2016)	65
54	Policymaker	Costa Rica	Decree No. 41578 extending the national moratorium on oil exploration and exploitation (2019)	51
55	Policymaker	Costa Rica	Decree No. 41578 extending the national moratorium on oil exploration and exploitation (2019)	46
56	Policymaker	Australia	Safeguard Mechanism (2016)	41
57	Policy consultant	UK	Energy Act (2011, 2013); Carbon Price Floor (2013); The Greenhouse Gas Emissions Trading Scheme Order (2020)	54
58	Academia	Korea	Emissions Trading Scheme (2015)	48
59	Academia, policy consultant	USA	Clean Power Plan (2014); Affordable Clean Energy (2019)	47
60	Policymaker, policy analyst, academia	UK	Energy Act (2011, 2013); Carbon Price Floor (2013); The Greenhouse Gas Emissions Trading Scheme Order (2020); Finance Act (2020)	49
61	Academia, policy consultant	Costa Rica	Decree No. 41578 extending the national moratorium on oil exploration and exploitation (2019)	51
62	Academia, policy analyst	UK	Carbon Price Floor (2013); Greenhouse Gas Emissions Trading Scheme Order (2020)	54

APPENDIX 4.4. INTERVIEW QUESTIONNAIRE

Context specific conditions:

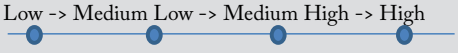
1. To what extent was the political environment polarized when the enactment of Policy Y took place?
    1. Probe: ideological/affective perspectives

Low -> Medium Low -> Medium High -> High



2. In your understanding, were there any other significant public grievances also occurring in Country X at the time that Policy Y was being implemented/enacted?
    1. Probe: economic downturn, cultural conflicts
3. To what extent is public contestation part of the political culture in Country X?

Low -> Medium Low -> Medium High -> High



    1. Follow-up question**:** Were there any other prior experience of public contestation related to climate policy (protest/mobilization) before this?
4. Zooming out further, to what extent have international and supranational climate agreements put pressure on national climate policymaking in Country X?

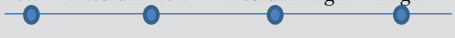
Low -> Medium Low -> Medium High -> High



Policy specific conditions:

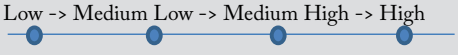
5. To what extent were citizens involved in the policymaking process of Policy Y?

Low -> Medium Low -> Medium High -> High

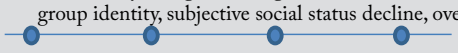


6. To what extent were the costs associated with Policy Y high for people in Country X? (both from material/non-material perspectives):
    1. Probe: material (e.g., economic, financial)/non-material (e.g., symbolic, cultural, emotional)

Low -> Medium Low -> Medium High -> High



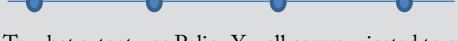
    2. Follow-up question: To what extent were the policy costs *perceived as* high by people in Country X?
7. To what extent was Policy Y seen as fair by people in Country X regarding the distribution of costs and benefits?
    1. Probe: Why? Progressive/regressive nature; cultural and entanglement-related factors (e.g., threat to group identity, subjective social status decline, overlooked needs/dependencies)



Extremely unfair -> Relatively unfair -> Relatively fair -> Totally fair

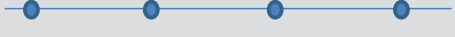
8. To what extent were policy costs transparent and explicit for people affected by it?

Low -> Medium Low -> Medium High -> High



9. To what extent was Policy Y well communicated to people affected by it?

Low -> Medium Low -> Medium High -> High



10. Were there any other important problems in the implementation of Policy Y?
    1. Probe: processual characteristics (e.g., adequacy of planning, smoothness of coordination, institutional readiness)

Concluding questions:

1. Summing up, based on your experience, what are the key drivers of policy contention when it comes to climate policy?
2. Would you like to add anything else that we have not discussed yet?
3. Is there anyone else you could recommend talking to about this policy?

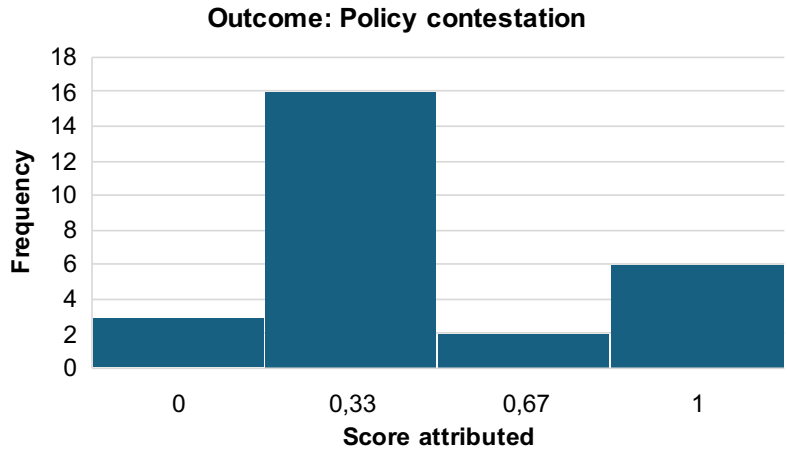
APPENDIX 4.5. CALIBRATED DATA PER CASE

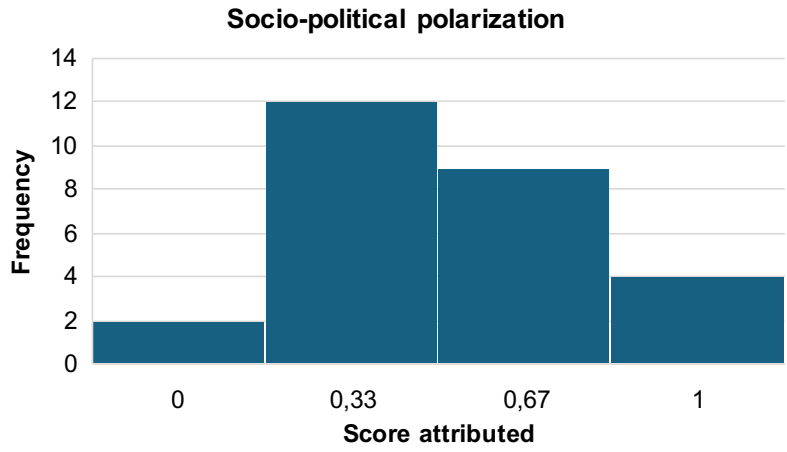
A5.1 Summary table

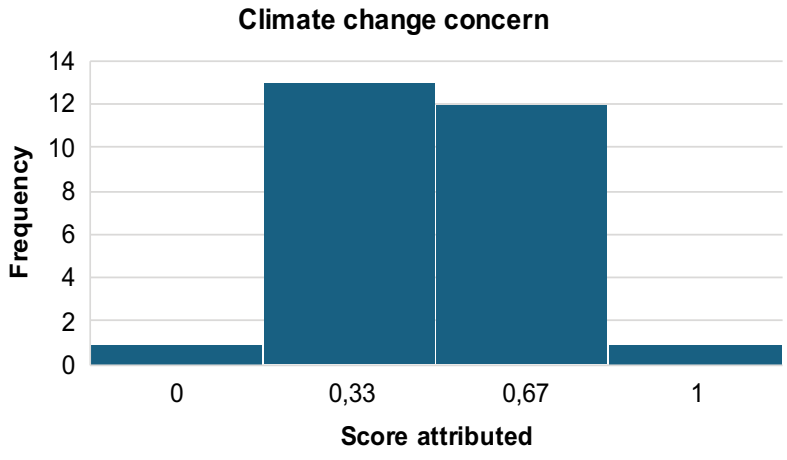
Cases			Conditions				
No.	ID	OUTCOME	POLAR	CONCERN	DEMAND	UNFAIR	INFO
1	B_Aus2011	1,00	1,00	0,33	0,67	0,67	0,00
2	A_Aus2016	0,33	0,67	0,67	0,33	0,33	0,67
3	A_Austr2014	0,33	0,33	0,67	0,67	0,33	0,67
4	B_Can2018	1,00	0,33	1,00	1,00	0,67	0,67
5	A_Chile2014	0,33	0,33	0,33	0,33	0,33	0,67
6	A_Chile2021	0,33	0,67	0,33	0,33	0,67	0,67
7	A_Col2016	0,33	0,67	0,00	0,00	0,67	0,00
8	A_CostR2019	0,33	0,33	0,67	0,33	0,33	0,67
9	A_Deu2015	0,33	0,33	0,33	0,67	0,33	0,00
10	A_Deu2019	0,33	0,33	0,67	0,67	0,33	0,33
11	B_Deu2020	1,00	0,33	0,67	0,33	0,33	0,67
12	B_Fran2014	1,00	0,67	0,67	1,00	1,00	0,00
13	A_Fran2017	0,33	1,00	0,67	0,33	0,67	0,00
14	A_Jap2012	0,33	0,33	0,33	0,33	0,67	0,00
15	A_Kor2015	0,33	0,67	0,67	0,33	0,33	0,00
16	A_Kor2015*	0,33	0,67	0,67	0,00	1,00	0,00
17	S_Ital2011	0,00	0,33	0,33	0,00	0,00	0,33
18	B_Mex2014	1,00	0,67	0,33	1,00	1,00	0,00
19	S_Mex2015	0,00	0,67	0,33	0,33	0,33	0,33
20	A_Mex2019	0,33	0,67	0,33	0,67	0,33	0,67
21	A_Turk2011	0,33	0,00	0,33	0,00	0,67	0,00
22	A_Swiss2013	0,33	0,00	0,67	0,67	0,00	0,67
23	N_UK2011	0,67	0,33	0,33	0,67	0,67	0,00
24	N_UK2013	0,67	0,33	0,33	0,67	0,67	0,00
25	A_UK2020	0,33	0,33	0,67	0,33	0,33	0,00
26	S_US2014	0,00	1,00	0,33	1,00	0,33	0,67
27	B_US2019	1,00	1,00	0,67	0,33	1,00	0,33

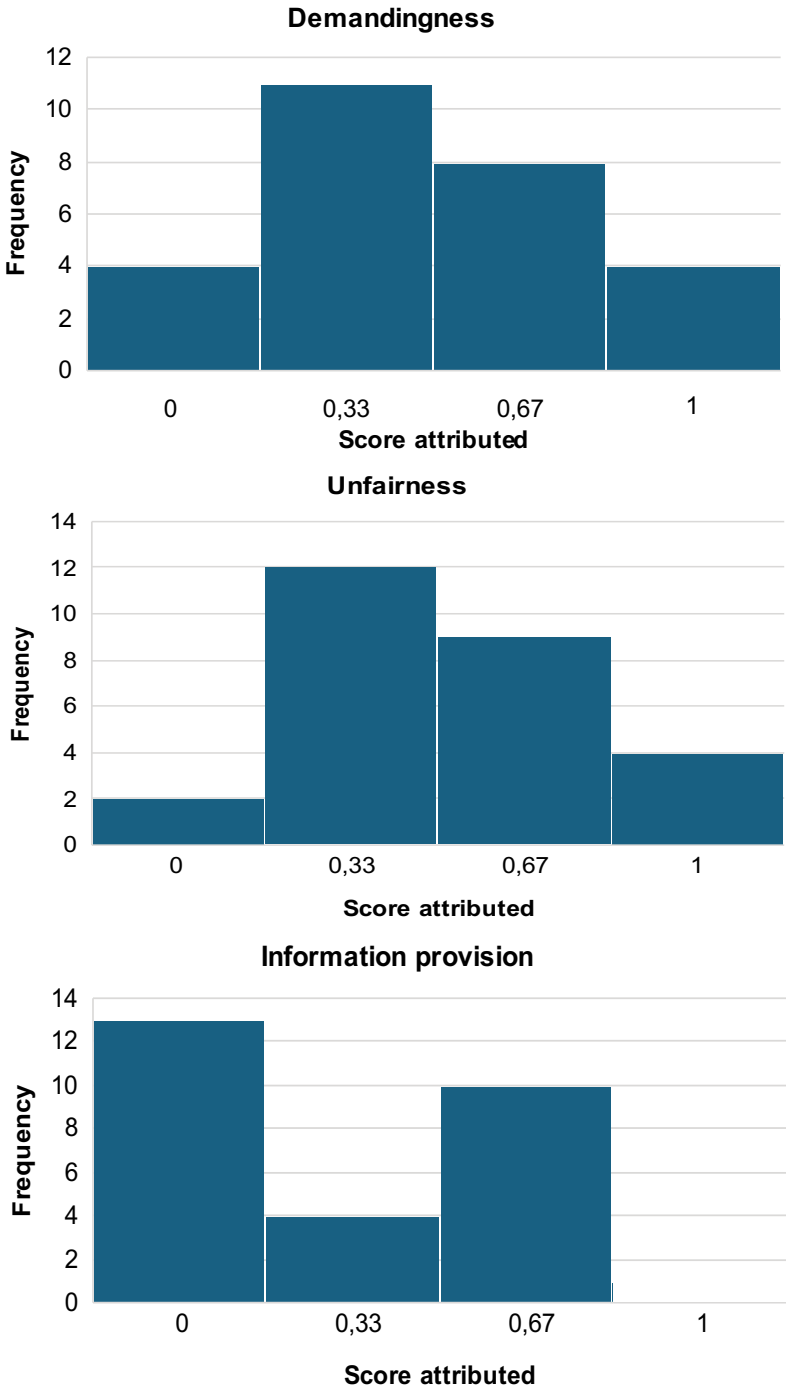
Legend: red = Backlash; blue = Non-acceptance; yellow = Acceptance; green = Support.

A5.2 Histograms of calibrated data








Demandingness
Frequency
12
10
8
6
4
2
0
0
0,33
0,67
1
Score attributed
Unfairness
Frequency
14
12
10
8
6
4
2
0
0
0,33
0,67
1
Score attributed
Information provision
Frequency
14
12
10
8
6
4
2
0
0
0,33
0,67
1
Score attributed

APPENDIX 4.6. QCA SUPPLEMENTARY MATERIALS

4.6.1 Analysis of necessity for the whole sample

1. Necessity of individual conditions for outcome:

```
> QCAfit(x=DATA_FIN[,c("POLAR","CONCERN", "DEMAND", "UNFAIR", "INFO")], y = DATA_FIN$OUTCOME)
        Cons.Nec Cov.Nec   RoN
POLAR      0.735   0.663 0.734
CONCERN    0.735   0.696 0.771
DEMAND     0.789   0.767 0.822
UNFAIR     0.868   0.783 0.811
INFO       0.342   0.537 0.836
~POLAR     0.657   0.637 0.748
~CONCERN   0.709   0.655 0.739
~DEMAND    0.603   0.543 0.670
~UNFAIR    0.550   0.533 0.697
~INFO      0.868   0.577 0.500
```

→ Conclusion: No single necessary conditions (given Cons.Nec < 0.9).

2. Necessity of individual conditions for non-outcome:

```
> nec_non_Contention
        Cons.Nec Cov.Nec   RoN
POLAR      0.672   0.690 0.750
CONCERN    0.672   0.725 0.788
DEMAND     0.555   0.614 0.737
UNFAIR     0.578   0.594 0.696
INFO       0.442   0.792 0.919
~POLAR     0.672   0.743 0.807
~CONCERN   0.718   0.756 0.800
~DEMAND    0.789   0.810 0.830
~UNFAIR    0.789   0.872 0.894
~INFO      0.742   0.562 0.491
```

→ Conclusion: No single necessary conditions (given Cons.Nec < 0.9).

3. SUIN conditions:

```
> SUIN_Contention

                              inclN   RoN   covN
-----------------------------------------------
1  POLAR + DEMAND             0.921  0.605  0.657
2  ~POLAR + UNFAIR            0.922  0.561  0.633
3  CONCERN + UNFAIR           0.948  0.618  0.676
4  ~DEMAND + UNFAIR           0.922  0.562  0.633
5  DEMAND + UNFAIR            0.921  0.649  0.683
6  UNFAIR + INFO              0.922  0.627  0.670
7  ~POLAR + CONCERN + DEMAND  0.922  0.517  0.610
8  POLAR + ~CONCERN + UNFAIR  0.921  0.540  0.622
9  CONCERN + DEMAND + ~UNFAIR 0.922  0.539  0.622
-----------------------------------------------
```

4.6.2 Analysis of sufficiency for the whole sample

1. Analysis of Sufficiency:

Minimization of the truth table containing all possible combinations of conditions:

```
> TT

  OUT: output value
    n: number of cases in configuration
 incl: sufficiency inclusion score
  PRI: proportional reduction in inconsistency

    POLAR CONCERN DEMAND UNFAIR INFO  OUT   n  incl  PRI   cases
27      1       1      0      1    0    0   3 0.861 0.568 13,16,27
 7      0       0      1      1    0    1   2 0.948 0.835 23,24
23      1       0      1      1    0    1   2 0.913 0.779 1,18
 3      0       0      0      1    0    0   2 0.847 0.246 14,21
10      0       1      0      0    1    0   2 0.768 0.401 8,11
14      0       1      1      0    1    0   2 0.766 0.395 3,22
22      1       0      1      0    1    0   2 0.663 0.198 20,26
31      1       1      1      1    0    1   1 0.913 0.779 12
16      0       1      1      1    1    1   1 0.909 0.752 4
19      1       0      0      1    0    0   1 0.903 0.596 7
13      0       1      1      0    0    0   1 0.887 0.496 10
 5      0       0      1      0    0    0   1 0.881 0.330 9
 1      0       0      0      0    0    0   1 0.849 0.248 17
17      1       0      0      0    0    0   1 0.849 0.398 19
 9      0       1      0      0    0    0   1 0.841 0.248 25
25      1       1      0      0    0    0   1 0.841 0.398 15
20      1       0      0      1    1    0   1 0.816 0.496 6
 2      0       0      0      0    1    0   1 0.748 0.248 5
26      1       1      0      0    1    0   1 0.725 0.248 2

>
```

2. Conservative solution:

```
> sol_c <- minimize(TT, details = TRUE,
+                   outcome = "OUTCOME",
+                   show.cases = TRUE,
+                   use.tilde=FALSE)
> sol_c

M1: POLAR*DEMAND*UNFAIR*~INFO + ~CONCERN*DEMAND*UNFAIR*~INFO +
    ~POLAR*CONCERN*DEMAND*UNFAIR*INFO -> OUTCOME

                                    inclS   PRI   covS   covU   cases
-------------------------------------------------------------------------
1          POLAR*DEMAND*UNFAIR*~INFO  0.920  0.820  0.604  0.027  1,18; 12
2       ~CONCERN*DEMAND*UNFAIR*~INFO  0.920  0.820  0.605  0.054  23,24; 1,18
3  ~POLAR*CONCERN*DEMAND*UNFAIR*INFO  0.909  0.752  0.262  0.027  4
-------------------------------------------------------------------------
                                M1  0.929  0.859  0.685

>
```

→ Conclusion: Solution not too complex, therefore retain (although still check other solutions).

3. Parsimonious solution:

```
> sol_p_n

M1: DEMAND*UNFAIR -> OUTCOME

                inclS   PRI   covS   covU   cases
-------------------------------------------------------------
1  DEMAND*UNFAIR  0.934  0.876  0.737    -    23,24; 4; 1,18; 12
-------------------------------------------------------------
            M1  0.934  0.876  0.737

>
```

→ Conclusion: Core combination of DEMAND*UNFAIR appears in all solution pathways of conservative solution as well.

4. Intermediate solution:

Producing intermediate solution requires setting directional expectations:

1. ***Climate change concern*** *expected to be inverse to* ***Policy contestation*** *(outcome).*

```
> sol_i_n <- minimize(TT, details = TRUE, include = "?",
+                     outcome = "OUTCOME",
+                     show.cases = TRUE,
+                     dir.exp = c(1,0,1,1,"-"),
+                     use.tilde = FALSE)
> sol_i_n

From C1P1:

M1:    POLAR*DEMAND*UNFAIR + ~CONCERN*DEMAND*UNFAIR + DEMAND*UNFAIR*INFO -> OUTCOME

                          inclS   PRI   covS   covU   cases
-----------------------------------------------------------------
1     POLAR*DEMAND*UNFAIR  0.920  0.820  0.604  0.027  1,18; 12
2  ~CONCERN*DEMAND*UNFAIR  0.920  0.820  0.605  0.054  23,24; 1,18
3     DEMAND*UNFAIR*INFO  0.847  0.668  0.288  0.027  4
-----------------------------------------------------------------
                     M1  0.929  0.859  0.685
```

→ Conclusion: Same core combination of DEMAND*UNFAIR from parsimonious solution, in combination with three different additional conditions to produce three different solution pathways.

5. 'Agnostic' solution:

All directional expectations removed to explore consequences:

```
> sol_i_na <- minimize(TT, details = TRUE, include = "?",
+                      show.cases = TRUE,
+                      dir.exp = c("-","-","-","-","-"),
+                      use.tilde = FALSE)
> sol_i_na

From C1P1:

M1:    POLAR*DEMAND*UNFAIR*~INFO + ~CONCERN*DEMAND*UNFAIR*~INFO +
       ~POLAR*CONCERN*DEMAND*UNFAIR*INFO -> OUTCOME
M2:    POLAR*DEMAND*UNFAIR*~INFO + ~CONCERN*DEMAND*UNFAIR*~INFO +
       ~POLAR*CONCERN*DEMAND*UNFAIR*INFO -> OUTCOME
M3:    POLAR*DEMAND*UNFAIR*~INFO + ~CONCERN*DEMAND*UNFAIR*~INFO +
       ~POLAR*CONCERN*DEMAND*UNFAIR*INFO -> OUTCOME

                                                 ------------------------
                                    inclS   PRI   covS   covU   (M1)   (M2)   (M3)
-------------------------------------------------------------------------------------
1          POLAR*DEMAND*UNFAIR*~INFO  0.920  0.820  0.604  0.027    -
2       ~CONCERN*DEMAND*UNFAIR*~INFO  0.920  0.820  0.605  0.054           -
3  ~POLAR*CONCERN*DEMAND*UNFAIR*INFO  0.909  0.752  0.262  0.027                  -
-------------------------------------------------------------------------------------
                               M1  0.920  0.820  0.604
                               M2  0.920  0.820  0.605
                               M3  0.909  0.752  0.262

                                    cases
-----------------------------------------
1          POLAR*DEMAND*UNFAIR*~INFO  1,18; 12
2       ~CONCERN*DEMAND*UNFAIR*~INFO  23,24; 1,18
3  ~POLAR*CONCERN*DEMAND*UNFAIR*INFO  4
-----------------------------------------
```

→ Conclusion: Solution pathways are same as for the conservative solution.

4.6.3 Subgroup analysis

A6.3.1 Taxation/Pricing policies

1. Data frame for subgroup (n=15):

	X	POLAR	CONCERN	DEMAND	UNFAIR	INFO	OUTCOME
1	B_Aus2011 #1	1.00	0.33	0.67	0.67	0.00	1.00
2	B_Can2018 #4	0.33	1.00	1.00	0.67	0.67	1.00
3	A_Chile2014 #5	0.33	0.33	0.33	0.33	0.67	0.33
4	A_Col2016 #7	0.67	0.00	0.00	0.67	0.00	0.33
5	A_Deu2019 #10	0.33	0.67	0.67	0.33	0.33	0.33
6	B_Fran2014 #12	0.67	0.67	1.00	1.00	0.00	1.00
7	A_Jap2012 #14	0.33	0.33	0.33	0.67	0.00	0.33
8	A_Kor2015 #15	0.67	0.67	0.33	0.33	0.00	0.33
9	A_Kor2015* #16	0.67	0.67	0.00	1.00	0.00	0.33
10	B_Mex2014 #18	0.67	0.33	1.00	1.00	0.00	1.00
11	A_Mex2019 #20	0.67	0.33	0.67	0.33	0.67	0.33
12	A_Turk2011 #21	0.00	0.33	0.00	0.67	0.00	0.33
13	A_Swiss2013 #22	0.00	0.67	0.67	0.00	0.67	0.33
14	N_UK2011 #23	0.33	0.33	0.67	0.67	0.00	0.67
15	A_UK2020 #25	0.33	0.67	0.33	0.33	0.00	0.33

→ NB: Cases relabeled in left hand column, but original case no. retained within case label.

ANALYSIS OF NECESSITY

1. Necessity of individual conditions for outcome:

```
> QCAfit(x=DATA_FIN[,c("POLAR","CONCERN", "DEMAND", "UNFAIR", "INFO")], y = DATA_FIN$OUTCOME)
         Cons.Nec Cov.Nec   RoN
POLAR       0.708   0.806 0.855
CONCERN     0.706   0.768 0.819
DEMAND      0.834   0.867 0.878
UNFAIR      0.876   0.805 0.789
INFO        0.250   0.661 0.922
~POLAR      0.665   0.663 0.722
~CONCERN    0.708   0.735 0.783
~DEMAND     0.497   0.540 0.695
~UNFAIR     0.497   0.626 0.785
~INFO       0.916   0.609 0.391
>
```

→ Conclusion: No single necessary conditions (given Cons.Nec < 0.9).

2. Necessity of individual conditions for non-outcome:

```
> nec_Contention
         Cons.Nec Cov.Nec   RoN
POLAR       0.708   0.806 0.855
CONCERN     0.706   0.768 0.819
DEMAND      0.834   0.867 0.878
UNFAIR      0.876   0.805 0.789
INFO        0.250   0.661 0.922
~POLAR      0.665   0.663 0.722
~CONCERN    0.708   0.735 0.783
~DEMAND     0.497   0.540 0.695
~UNFAIR     0.497   0.626 0.785
~INFO       0.916   0.609 0.391
```

→ Conclusion: No single necessary conditions (given Cons.Nec < 0.9).

3. SUIN conditions:

```
> SS_C

                       inclN   RoN   covN
----------------------------------------
1  POLAR + DEMAND      0.959  0.723  0.789
2  POLAR + UNFAIR      0.917  0.692  0.755
3  ~CONCERN + DEMAND   0.959  0.632  0.738
4  CONCERN + DEMAND    0.917  0.735  0.782
5  ~CONCERN + UNFAIR   0.917  0.649  0.730
6  DEMAND + ~UNFAIR    0.917  0.692  0.755
7  DEMAND + UNFAIR     0.959  0.632  0.738
8  UNFAIR + INFO       0.917  0.648  0.730
----------------------------------------
```

→ Conclusion: Some conceptually meaningful SUIN conditions with acceptable parameters of fit (inclN ≥ 0.9; RoN and CovN ≥ 0.6).

ANALYSIS OF SUFFICIENCY

1. Analysis of Sufficiency:

Minimization of the truth table containing all possible combinations of conditions:

```
> TT <- truthTable(DATA_FIN, outcome = "OUTCOME",
+                  conditions = colnames(DATA_FIN[,2:6]),
+                  incl.cut = 0.80,
+                  pri.cut = 0.60,
+                  n.cut = 1,
+                  complete = FALSE,
+                  show.cases = TRUE,
+                  sort.by = c("Outcome", "n", "incl", "pri.cut"))
> TT

  OUT: output value
    n: number of cases in configuration
 incl: sufficiency inclusion score
  PRI: proportional reduction in inconsistency

    POLAR CONCERN DEMAND UNFAIR INFO   OUT    n  incl  PRI   cases
23     1      0      1      1     0      1     2  1.000 1.000 1,10
 3     0      0      0      1     0      0     2  0.829 0.000 7,12
 7     0      0      1      1     0      1     1  1.000 1.000 14
16     0      1      1      1     1      1     1  1.000 1.000 2
31     1      1      1      1     0      1     1  1.000 1.000 6
19     1      0      0      1     0      0     1  0.907 0.493 4
 9     0      1      0      0     0      0     1  0.897 0.000 15
13     0      1      1      0     0      0     1  0.897 0.493 5
27     1      1      0      1     0      0     1  0.897 0.493 9
25     1      1      0      0     0      0     1  0.886 0.493 8
14     0      1      1      0     1      0     1  0.829 0.493 13
 2     0      0      0      0     1      0     1  0.795 0.000 3
22     1      0      1      0     1      0     1  0.744 0.000 11
```

2. Conservative solution:

```
> sol_c

M1: POLAR*DEMAND*UNFAIR*~INFO + ~CONCERN*DEMAND*UNFAIR*~INFO +
    ~POLAR*CONCERN*DEMAND*UNFAIR*INFO -> OUTCOME

                                     inclS   PRI   covS   covU   cases
-------------------------------------------------------------------------
1          POLAR*DEMAND*UNFAIR*~INFO  1.000  1.000  0.583  0.043  1,10; 6
2       ~CONCERN*DEMAND*UNFAIR*~INFO  1.000  1.000  0.542  0.043  14; 1,10
3  ~POLAR*CONCERN*DEMAND*UNFAIR*INFO  1.000  1.000  0.208  0.043  2
-------------------------------------------------------------------------
                                  M1  1.000  1.000  0.669
```

→ Conclusion: Solution seems too complex, therefore seek intermediate solution.

3. Parsimonious solution:

```
> sol_p_n

M1: DEMAND*UNFAIR -> OUTCOME

                  inclS   PRI   covS   covU   cases
-----------------------------------------------------------
1  DEMAND*UNFAIR  1.000  1.000  0.752    -    14; 2; 1,10; 6
-----------------------------------------------------------
              M1  1.000  1.000  0.752
```

→ Conclusion: Core combination of DEMAND*UNFAIR appears in all solution pathways of conservative solution as well.

4. Intermediate solution:

Producing intermediate solution requires setting directional expectations:

2. *Climate change concern* expected to be inverse to *Policy contestation* (outcome).

```
> sol_i_n <- minimize(TT, details = TRUE, include = "?",
+                     outcome = "OUTCOME",
+                     show.cases = TRUE,
+                     dir.exp = c(1,0,1,1,"-"),
+                     use.tilde = FALSE)
> sol_i_n

From C1P1:

M1:    POLAR*DEMAND*UNFAIR + ~CONCERN*DEMAND*UNFAIR + DEMAND*UNFAIR*INFO -> OUTCOME

                          inclS   PRI   covS   covU   cases
-------------------------------------------------------------------
1     POLAR*DEMAND*UNFAIR  1.000  1.000  0.583  0.043  1,10; 6
2  ~CONCERN*DEMAND*UNFAIR  1.000  1.000  0.542  0.043  14; 1,10
3      DEMAND*UNFAIR*INFO  1.000  1.000  0.208  0.043  2
-------------------------------------------------------------------
                       M1  1.000  1.000  0.669
```

→ Conclusion: Same core combination of DEMAND*UNFAIR from parsimonious solution, in combination with three different additional conditions to produce three different solution pathways.

Producing intermediate solution requires setting directional expectations:

3. *Climate change concern* expected to be inverse to *Policy contestation* (outcome).

4. *Information provision* expected to be inverse to *Policy contestation* (outcome).

```
> sol_i_n <- minimize(TT, details = TRUE, include = "?",
+                     outcome = "OUTCOME",
+                     show.cases = TRUE,
+                     dir.exp = c(1,0,1,1,"0"),
+                     use.tilde = FALSE)
> sol_i_n

From C1P1:

M1:    DEMAND*UNFAIR -> OUTCOME

                  inclS   PRI   covS   covU   cases
-----------------------------------------------------------------
1  DEMAND*UNFAIR  1.000  1.000  0.752    -    14; 2; 1,10; 6
-----------------------------------------------------------------
              M1  1.000  1.000  0.752
```

→ Conclusion: Same core combination of DEMAND*UNFAIR from parsimonious solution, and parsimonious solution for analysis of whole sample.

A6.3.1 Regulation and Phase-out policies

1. Data frame for subgroup (n=12):

	X	POLAR	CONCERN	DEMAND	UNFAIR	INFO	OUTCOME
1	A_Aus2016 #2	0.67	0.67	0.33	0.33	0.67	0.33
2	A_Austr2014 #3	0.33	0.67	0.67	0.33	0.67	0.33
3	A_Chile2021 #6	0.67	0.33	0.33	0.67	0.67	0.33
4	A_CostR2019 #8	0.33	0.67	0.33	0.33	0.67	0.33
5	A_Deu2015 #9	0.33	0.33	0.67	0.33	0.00	0.33
6	B_Deu2020 #11	0.33	0.67	0.33	0.33	0.67	1.00
7	A_Fran2017 #13	1.00	0.67	0.33	0.67	0.00	0.33
8	S_Ital2011 #17	0.33	0.33	0.00	0.00	0.33	0.00
9	S_Mex2015 #19	0.67	0.33	0.33	0.33	0.33	0.00
10	N_UK2013 #24	0.33	0.33	0.67	0.67	0.00	0.67
11	S_US2014 #26	1.00	0.33	1.00	0.33	0.67	0.00
12	B_US2019 #27	1.00	0.67	0.33	1.00	0.33	1.00

→ NB: Cases relabeled in left hand column, but original case no. retained within case label.

ANALYSIS OF NECESSITY

1. Necessity of individual conditions for outcome:

```
         Cons.Nec Cov.Nec   RoN
POLAR       0.783   0.521 0.599
CONCERN     0.785   0.608 0.719
DEMAND      0.712   0.622 0.769
UNFAIR      0.856   0.748 0.833
INFO        0.499   0.463 0.722
~POLAR      0.643   0.597 0.776
~CONCERN    0.712   0.552 0.690
~DEMAND     0.785   0.546 0.637
~UNFAIR     0.641   0.446 0.590
~INFO       0.785   0.522 0.600
>
```

→ Conclusion: No single necessary conditions (given Cons.Nec < 0.9).

2. Necessity of individual conditions for non-outcome:

```
> nec_non_Contention
         Cons.Nec Cov.Nec   RoN
POLAR       0.725   0.763 0.751
CONCERN     0.634   0.777 0.817
DEMAND      0.588   0.812 0.870
UNFAIR      0.497   0.686 0.800
INFO        0.546   0.800 0.875
~POLAR      0.544   0.798 0.874
~CONCERN    0.680   0.833 0.857
~DEMAND     0.727   0.799 0.799
~UNFAIR     0.818   0.900 0.888
~INFO       0.634   0.667 0.683
>
```

→ Conclusion: No single necessary conditions (given Cons.Nec < 0.9).

3. SUIN conditions:

```
> SUIN_Contention
NULL
>
```

→ Conclusion: No SUIN conditions with acceptable parameters of fit (inclN ≥ 0.9; RoN and CovN ≥ 0.6).

ANALYSIS OF SUFFICIENCY

1. Analysis of Sufficiency:

Minimization of the truth table containing all possible combinations of conditions:

```
> TT <- truthTable(DATA_FIN, outcome = "OUTCOME",
+                  conditions = colnames(DATA_FIN[,2:6]),
+                  incl.cut = 0.80,
+                  pri.cut = 0.60,
+                  n.cut = 1,
+                  complete = FALSE,
+                  show.cases = TRUE,
+                  sort.by = c("Outcome", "n", "incl", "pri.cut"))
> TT

  OUT: output value
    n: number of cases in configuration
 incl: sufficiency inclusion score
  PRI: proportional reduction in inconsistency

     POLAR CONCERN DEMAND UNFAIR INFO   OUT    n  incl  PRI   cases
27     1      1      0      1     0      0     2  0.832 0.599 7,12
10     0      1      0      0     1      0     2  0.666 0.401 4,6
 7     0      0      1      1     0      1     1  0.889 0.670 10
 5     0      0      1      0     0      0     1  0.775 0.330 5
20     1      0      0      1     1      0     1  0.747 0.496 3
17     1      0      0      0     0      0     1  0.725 0.248 9
14     0      1      1      0     1      0     1  0.711 0.330 2
 1     0      0      0      0     0      0     1  0.698 0.248 8
22     1      0      1      0     1      0     1  0.623 0.248 11
26     1      1      0      0     1      0     1  0.623 0.248 1

>
```

→ Conclusion: contradictory rows for two of three cases of policy contestation. The solution model offers only an idiosyncratic pathway explaining one case of policy contestation.

2. Conservative solution:

```
> sol_c

M1: ~POLAR*~CONCERN*DEMAND*UNFAIR*~INFO -> OUTCOME

                                        inclS   PRI   covS   covU   cases
-------------------------------------------------------------------------
1  ~POLAR*~CONCERN*DEMAND*UNFAIR*~INFO  0.889  0.670  0.570    -    10
-------------------------------------------------------------------------
                                   M1   0.889  0.670  0.570
```

→ Conclusion: Solution too complex, and only explains one case, hence non-informative.

CHAPTER V

Appendix 5.1. List of interview participants

Case	Label	Role	Date	Duration (min)
1. Australia - Carbon pricing policy package (2011-2012)	Int1_AUS	Academia, policy analyst	13/03/2024	47
	Int2_AUS	Policymaker	15/04/2024	65
	Int3_AUS	Policymaker	29/04/2024	41
2. Canada - Carbon pricing policy package (2017-2020)	Int1_CAN	Policy consultant	04/08/2023	55
	Int2_CAN	Policymaker	22/09/2023	32
	Int3_CAN	Academia, policy consultant	15/12/2023	55
	Int4_CAN	Policy analyst	12/01/2024	47
	Int5_CAN	Policy consultant	01/02/2024	40
3. Germany - Coal Exit Law (2020)	Int1_GER	Academia, policy consultant	13/11/2023	40
	Int2_GER	Policymaker	06/02/2024	20
	Int3_GER	Academia, policy analyst	15/02/2024	53
4. France - Carbon Charge Component (2014)	Int1_FRA	Policy consultant	25/07/2023	40
	Int2_FRA	Policymaker	11/10/2023	33
	Int3_FRA	Academia, policy consultant	02/11/2023	42
	Int4_FRA	Policymaker	06/12/2023	44
	Int5_FRA	Academia, policy analyst	14/12/2023	57
	Int6_FRA	Policy analyst	03/01/2024	45
5. Mexico - Carbon tax policy (2014)	Int1_MEX	Policymaker	21/09/2023	46
	Int2_MEX	Policy analyst	21/09/2023	46
	Int3_MEX	Policy consultant	09/10/2023	45
	Int4_MEX	Academia, policy consultant	27/10/2023	46
	Int5_MEX	Policymaker	03/11/2023	53
6. United States - Affordable Clean Energy Rule (2019)	Int1_USA	Policy analyst	30/06/2023	49
	Int2_USA	Policy analyst	29/08/2023	48
	Int3_USA	Academia, policy consultant	08/05/2024	47

Appendix 5.2. Scoring summary tables (per case)

Case 1. Australia's carbon pricing policy package (2011-2012):

Analytical framework criteria									
Process			*Program*			*Politics*			
1. Deviation from original goals and instruments	2. Presence of legitimacy challenges	3. Presence of opposition to policy process	4. Objectives non-attainment	5. Outcomes non-attainment	6. Opposition to program (its aims, values, means)	7. Policy as an electoral/ reputational liability	8. Incapacity to govern	9. Deviation from the climate action trajectory	10. Policy endurance
Summary of key features interpreted from synthesis of primary and secondary data:									
Policy formally repealed in July 2014 and replaced by the Emissions Reduction Fund under the Direct Action Plan, shifting from market-based pricing to government-funded abatement projects.	Significant legitimacy challenges prompted by the perceived-as-broken election promise of 'no carbon tax' as well as by the pervasive narrative propagated by the opposition party that the policy would impose significant costs on households and businesses.	The opposition party, led by Tony Abbott, strongly opposed the package and framed it as economically harmful and politically illegitimate. Without bipartisan backing, the policy remained vulnerable to repeal if the opposition gained power,	The main objectives of the policy package were related to the implementation of long-term carbon pricing (CP). They were not achieved as the policy was repealed. Even though short-term emissions reduction took place between 2012-2014 demonstrating some success towards reaching its objectives,	Broader outcomes of the long-term carbon pricing arrangement included maintaining a downward emissions trajectory and achieving sustained energy system transformation. They were not realized due to political opposition and policy repeal.	Policy goals were opposed largely due to the widespread 'damaging' narrative created by opposition party that emissions reduction would hurt citizens. Climate action through the means of this policy was seen to be at the disproportional expense of the public	The Labor government who introduced the policy package lost the subsequent national election, largely because of the political unpopularity of the CP among the electorate. This led to the change in party leadership, and became a reputational liability to the Labor party in future national elections,	The fragile parliamentary position of the minority government significantly constrained governing capacity: CP policy became a focal point of partisan conflict, limiting opportunities for compromise or stable long-term policy development.	The policy package was an important step towards a pro-climate action trajectory. Fierce contestation around CP created a negative political legacy that held back further climate policy action. NB: The low failure score is assigned since the policy itself was designed to promote a more ambitious climate action, i.e.,	Calls for policy change arose even before the policy was enacted, from the opposition party who strongly opposing carbon pricing as well as conservative media, and publics eventually also turned sharply against CP. The political vulnerability of the minority government, and their ineffective communication strategy against policy opposition,

Case 1. Australia's carbon pricing policy package (2011-2012): (*continued*)

Analytical framework criteria									
Original goals and instruments were completely abandoned, hence, the highest failure score.	Since the policy was adopted by a minority government, it was also framed as "politically illegitimate" by the opposition.	which ultimately occurred after the 2013 Australian federal election.	policy termination limited progress.	Consequently, emissions began to rise again after 2014.	(especially since climate change concern was not an utmost priority for most people).	leading to much internal debate and hesitancy on climate policy.	It also reinforced socio-political polarization further undermining governability.	no deviation from the climate action trajectory (unlike its repeal).	fed into eventual policy repeal making it a short-lived attempt for CP.
Score attributed (1=low, 2=medium, 3=high):									
3	3	3	3	3	3	3	3	1	3
Total = 28 points									

Case 2. Canada's carbon pricing policy package (2017-2020)

Analytical framework criteria									
Process			*Program*			*Politics*			
1. Deviation from original goals and instruments	2. Presence of legitimacy challenges	3. Presence of opposition to policy process	4. Objectives non-attainment	5. Outcomes non-attainment	6. Opposition to program (its aims, values, means)	7. Policy as an electoral/ reputational liability	8. Incapacity to govern	9. Deviation from the climate action trajectory	10. Policy endurance
Summary of key features interpreted from synthesis of primary and secondary data:									
Mixed picture: evolution of instruments and even more ambitious policy goals of achieving deep, economy-wide emissions reductions aligned with net-zero by 2050. The instruments shifted from simple price mechanisms (fuel charge, OBPS) to a multi-layered system with offsets, rebates, and sectoral decarbonization strategies.	Persistent legitimacy challenges. Several provinces contested the federal authority to impose carbon pricing, framing it as an intrusion on provincial autonomy. Although upheld as constitutional by the Supreme Court in 2021, this dispute revealed deep regional divisions over federal carbon pricing.	Extensive opposition to policy process on multiple grounds: - constitutional (e.g., disputes over separation of federal and provincial powers/spheres of decision-making), - political (e.g., conservatives and industry groups felt somewhat excluded from the policy process),	Partially achieved objectives: Fuel Charge, GGPPA, and related instruments reduced emissions modestly (from 730 to 708 Mt CO_2-eq between 2019 and 2022) without harming economic growth. The system established a durable national framework and enabled revenue neutrality via household rebates.	Mixed results: despite some progress; Canada is off track for its 2030 targets, and regional inequities persist, especially in energy-intensive provinces. Despite surviving constitutional challenges, political and social legitimacy remain fragile.	Opposition has spanned policy aims (e.g., federal emissions targets and economic trade-offs), values (e.g., questioned fairness, equity, and regional autonomy), and means (e.g., fuel charges, industrial pricing, and offsets seen as too complex or unfair).	Mixed results: Electorally: opposition parties leveraged regional voter backlash in resource-dependent provinces to oppose CP. Reputationally: perceived as complex, costly, or unfair; media framing as "carbon tax" affects government credibility.	No apparent incapacity to govern. While the framework faced political opposition, legal challenges, and public criticism, the federal government maintained full administrative, legislative, and policy control over its implementation.	Policy was intended to bolster the pro-climate agenda. Even if there is only a partial alignment with the desired climate policy trajectory, the policy package remains the central to Canada's national climate action, keeping the course towards economy-wide decarbonization	Large-scale call for policy changes occurred within the first year of implementation of the components of the policy package. Provinces like Alberta, Saskatchewan, and Ontario launched legal and political challenges against the GGPPA by late 2018–2019,

Case 2. Canada's carbon pricing policy package (2017-2020) (*continued*)

Analytical framework criteria									
From 01/04/2025, the fuel charge rate is set to zero.	The system's complexity and uneven regional impacts	- socio-economic (e.g., regional fairness debate; compensation mechanisms; public transparency).	Suspension of fuel charge from 01/04/2025 (i.e., failure of key component).	The policy's visibility as a "carbon tax" and its perceived cost burden limit its effectiveness and prompted its weakening.	Legal validation by Supreme Court in 2021 secured formal authority, but debates around the package continued.	The Court ruling, economic stability, and environmental signalling partially offset liability	The 2025 suspension of the consumer fuel charge could be seen to reflect policy adjustment, not inability to govern.	(especially as the longer-term fate and consequences of the 2025 suspension of the consumer fuel charge is unclear).	questioning federal authority and fairness (Supreme Court of Canada, 2021).
Score attributed (1=low, 2=medium, 3=high):									
2	2	2	2	2	2	2	1	1	3
Total = 19 points									

Case 4. France's Carbon Charge Component (2014)

Analytical framework criteria									
Process			*Program*			*Politics*			
1. Deviation from original goals and instruments	2. Presence of legitimacy challenges	3. Presence of opposition to policy process	4. Objectives non-attainment	5. Outcomes non-attainment	6. Opposition to program (its aims, values, means)	7. Policy as an electoral/ reputational liability	8. Incapacity to govern	9. Deviation from the climate action trajectory	10. Policy endurance
Summary of key features interpreted from synthesis of primary and secondary data:									
Both goals and instruments underwent some modification. The envisioned continuous increase of the CCE was frozen at the 2018 level in response to social protests. Although initially targeted at energy consumption broadly, exemptions and compensations were later introduced (e.g., for households, certain fuels).	There were significant legitimacy challenges touching on issues of democratic consent, fairness, and effectiveness The policy process featured input legitimacy problems (e.g., lack of broad public consent, low support), throughput legitimacy issues (e.g., concerns about fairness, transparency, distributional justice),	At the beginning, there was little publicity but opposition later ramped up on grounds of 'who decided?', 'how decisions were reached?', and 'who bore the burden?'. Concerns included inadequate public consultation, perceived elite policy capture, unfair distribution of costs,	Mixed results: The CCE successfully established a carbon-price instrument and generated significant revenue (around €8–10 billion annually by 2018). But it did not fully achieve its emission-reduction targets as it deviated from the planned trajectory of rate increases due to backlash (frozen at 2018 rate).	Mixed results: achieving wider-spectrum outcomes was hampered primarily by socio-political resistance, low price levels relative to necessary abatement cost. It achieved its institutional and fiscal goals, embedding a national carbon price and producing stable revenues. CCE environmental outcomes were limited.	The CCE faced opposition on many grounds: its aims were seen as fiscally rather than environmentally motivated; the policy was seen by many people as socially regressive; and its means were criticized as opaque and technocratic. Opposition intensified as rising fuel prices and weak compensatory measures deepened perceptions of inequality,	Severe reputational and electoral liability for the Macron government which dramatically damaged its public approval. Subsequent elections saw weakened centrist performance and increased environmental and populist opposition. The policy's unpopularity entrenched a "carbon tax taboo",	Temporary incapacity to govern during the Gilets Jaunes crisis. Widespread protests against fuel tax hikes paralyzed public authorities for many months. There were also widespread calls for emergency social consultations, a breakdown of both govern-ability and legitimacy,	The CCE meant to foster a steadily rising carbon price toward 2030, supporting the National Low-Carbon Strategy. However, the Gilets Jaunes protests forced the government to freeze the tax at the 2018 level of €44.6/tCO_2 (previously projected to increase to €86/tCO_2 by 2022).	Due to low publicity at the beginning of policy implementation, the first calls for policy change appeared only when a more noticeable increase in the tax rate in 2017-2018 took place combined with rising world energy prices. This resulted in the Gilets Jaunes movement in 2018-2019. Hence,

Case 4. France's Carbon Charge Component (2014) (*continued*)

Analytical framework criteria									
The objectives now emphasize transition support not just a price-signal.	and output legitimacy issues (e.g., not effective and socially unacceptable).	and a quick escalation of fiscal burden without social legitimacy.	Weak progressivity, limited trans-parency limited its capacity.	The socio-political outcomes were largely negative, sparking the protests.	leading to mass protests.	shaping a cautious shift to incentive-based climate policies.	as technocratic climate policy-making collided with distributive injustice; "crisis of state authority" (Int3_FRA).	This was a clear deviation from the intended trajectory with lessened emissions reduction.	for more than three years this policy remained on its originally planned course.
Score attributed (1=low, 2=medium, 3=high):									
2	3	2	2	2	3	3	3	2	1
Total = 23 points									

Case 5. Mexico's carbon tax policy (2014)

Analytical framework criteria									
Process			*Program*				*Politics*		
1. Deviation from original goals and instruments	2. Presence of legitimacy challenges	3. Presence of opposition to policy process	4. Objectives non-attainment	5. Outcomes non-attainment	6. Opposition to program (its aims, values, means)	7. Policy as an electoral/ reputational liability	8. Incapacity to govern	9. Deviation from the climate action trajectory	10. Policy endurance
Summary of key features interpreted from synthesis of primary and secondary data:									
Noticeable modifications: the tax was kept at a lower rate than initially planned and remains a component of the Special Tax on Production and Services (IEPS), which applies to the carbon content of fossil fuels (excluding natural gas). In 2022, the IEPS tax on gasoline and diesel was suspended to offset price increases.	The tax was seen as a revenue-raising instrument rather than a dedicated climate policy, undermining input legitimacy; uneven coverage (i.e., excluding natural gas and applying differentiated rates across fuels) led to perceptions of inequity (throughput legitimacy);	Initially, at the pre-adoption stage, industry pushback led to major design changes (e.g., zero-rating natural gas). After implementation, a relatively short-lived outburst of public discontent questioned the legitimacy of the policy process	Mixed results: the tax achieved its fiscal objective reasonably well, but its environmental and transformational objectives were only partially achieved. Because the price was low, coverage limited, and follow-through with broader market mechanisms lagged,	The tax raised fiscal revenues and contributed to broader carbon-pricing architecture, signaling intent for future market-based mechanisms (e.g., an ETS). However, economic and environmental outcomes remain modest. Empirical evidence shows that fuel consumption-intensity improved,	Significant opposition against aims, values, and design of the policy. Industry and business chambers opposed the policy's aims, portraying it as a fiscal rather than climate tool. Social and academic critics emphasized inequitable design (e.g., zero rates for natural gas).	The tax was embedded in a 2013 fiscal reform and received limited visibility until a spike arose from a global fuel price increase leading to public protests and discontent. This did not lead to major electoral impacts, but created reputational costs for the government.	The relatively short-lived social unrest revealed institutional weaknesses and lack of coordination. Nonetheless, there was no loss of governability per se. The policy's low ambition insulated it politically, but exposed institutional fragmentation in environmental governance.	The low tax rate from the outset did not make the policy a powerful tool for emissions reduction. However, it was seen as a first step, and a signal towards switching to market-based mechanisms of emissions regulation. Also, a 2022 policy suspended the IEPS tax on gasoline and diesel to offset price increases,	Calls for policy change appeared more than three years after adoption. Significant protests occurred in 2017, largely due to several mismatches including a spike in the world fossil fuel prices. No major failings of the policy were detected early on

Case 5. Mexico's carbon tax policy (2014) (*continued*)

Analytical framework criteria									
Some Mexican states implemented their own CO_2 taxes; ETS became more prominent.	limited transparency in the allocation of revenues absorbed into the general budget instead of the Climate Change Fund, eroded output legitimacy.	(and governing elites more broadly) and led to further weaking of the instrument.	the tax's impact on emissions and transition momentum remains modest and much below ambition.	yet not due to the tax but major reductions from excise taxes and subsidy removals.	The means were seen as shaped by elite capture and lobbying leading to reduced coverage and tax rates.	It was criticized for weak ambition, unfair exemptions (e.g. natural gas), and lack of transparency on revenue use.	Analysts describe this as "technocratic stability without climate capacity" (Int2_MEX).	effectively weakening the tax's short-term impact.	(apart from its built-in low stringency, signaling that low climate ambition was "not a bug, it was a feature" (Int4_MEX).
Score attributed (1=low, 2=medium, 3=high):									
2	2	2	2	2	2	2	1	2	1
Total = 18 points									

Case 6. US Affordable Clean Energy regulation (2019)

Analytical framework criteria									
Process			*Program*				*Politics*		
1. Deviation from original goals and instruments	2. Presence of legitimacy challenges	3. Presence of opposition to policy process	4. Objectives non-attainment	5. Outcomes non-attainment	6. Opposition to program (its aims, values, means)	7. Policy as an electoral/ reputational liability	8. Incapacity to govern	9. Deviation from the climate action trajectory	10. Policy endurance
Summary of key features interpreted from synthesis of primary and secondary data:									
Repealed; the ACE rule represented a shift towards a less comprehensive regulatory framework replacing the more stringent Clean Power Plan (CPP). It faced continuous scrutiny that ultimately contributed to its repeal in 2024, and the establishment of more stringent emissions regulations,	Process legitimacy was questioned by climate action proponents due to Trump's non-majority presidential election win in 2016. Multiple lawsuits were also filed against the ACE rule, arguing that it violated the Clean Air Act by failing to enforce meaningful emissions reductions. In 2021,	Noticeable opposition: the lawfulness of the ACE rule was questioned. Additionally, opposition called for greater accountability and more ambitious emissions reduction strategies through legal challenges.	Mixed results: the objectives set forth by the ACE rule were largely not achieved and the anticipated emissions reductions were minimal; yet the ACE rule met some of its objectives (e.g., establishing a regulatory framework, providing states with flexibility,	Mixed results: the flexibility offered to states did not yield the expected outcomes in improving operational efficiencies or supporting the coal industry (since expected support for the coal industry was undermined by market dynamics of declining price for renewables and natural gas).	Opposition articulated concerns about the rule's failure to set meaningful emissions reductions and its prioritization of coal over a comprehensive strategy for decarbonizing the energy sector, and public health concerns.	Noticeable reputational liabilities. There is no strong evidence that ACE alone triggered an electoral response or significantly shifted national vote outcomes. However, adjacent public health concerns	ACE did not provoke a breakdown of governance or a collapse of executive authority. But the rule did contribute to governance challenges including legal challenges over its authority and compliance challenges since state authorities were not ready to manage the issue effectively at their level.	ACE's design undercut the EPA's capacity to contribute to a national climate action trajectory, weakening climate policy. This deviated from the ambitious climate agenda previously envisioned. ACE did not necessarily create an emissions spike,	Policy faced immediate and significant calls for change. Several legal challenges were filed shortly after the ACE rule's inception. In January 2021, the rule was annulled by the D.C. Circuit and in 2024 it was replaced by a more stringent regulation.

Case 6. US Affordable Clean Energy regulation (2019) (*continued*)

Analytical framework criteria									
reflecting a stronger climate action commitment.	the U.S. Court of Appeals noted a need for stronger accountability in reporting and emissions reduction.	Some states expressed concerns over ACE's feasibility and potential lack of clarity in policy compliance leading to decreased effectiveness.	and replacing the previous CPP thereby granting regulatory freedom from the EPA's framing).	The repeal in 2024 confirmed these inefficacies and the need for more climate ambition.	Strong support from conservatives and industry for decentralization and relaxation of climate rules. Coal states framed it as pro-jobs /pro-states' rights.	(e.g., deaths from coal pollution – NYT, 2018) became more pronounced contributing to a negative reputational image of the Trump administration.	ACE's inconsistency jeopardized stability in energy sector governance.	but pulled federal policy away from an economy-wide decarbonization pathway toward a constrained, plant-efficiency focus.	Overall, the extensive opposition calling for more ambitious climate policy coupled with the change in administration resulted in the Rule's repeal.
Score attributed (1=low, 2=medium, 3=high):									
3	3	2	2	2	2	2	2	3	3
Total = 24 points									

CHAPTER VI.

Appendix 6.1: Overview of cases*

*Based on Table 2 from Anisimova & Patterson, 2025

Case no.	Country	Policy (package)	Year	Focal Policy Instrument	Response category
1	Australia	Clean Energy Act	2011	Taxes/pricing	Backlash
2	Australia	Safeguard Mechanism	2016	Regulation	Acceptance
3	Austria	Energy efficiency Act	2014	Regulation	Acceptance
4	Canada	Federal Carbon Pricing Approach and Backstop System	2018	Taxes/pricing	Backlash
5	Chile	Carbon Tax	2014	Taxes/pricing	Acceptance
6	Chile	Coal power phase-out plans	2021	Phase out	Acceptance
7	Colombia	Law 1819 creating the National Carbon Tax	2016	Taxes/pricing	Acceptance
8	Costa Rica	Decree No. 41578 extending the national moratorium on oil exploration and exploitation	2019	Phase out	Acceptance
9	Germany	Greenhouse Gas Reduction Quota	2015	Regulation	Acceptance
10	Germany	Fuel Emissions Trading Act (BEHG)	2019	Taxes/pricing	Acceptance
11	Germany	Coal Exit Law (Kohleausstiegsgesetz)	2020	Phase out	Backlash
12	France	Carbon Charge Component	2014	Taxes/pricing	Backlash
13	France	Law on the End of Exploration and Exploitation of Hydrocarbons and Diverse Dispositions Related to Energy and the Environment	2017	Phase out	Acceptance
14	Japan	Tax for Climate Change Mitigation	2012	Taxes/pricing	Acceptance
15	South Korea	Transportation-Energy-Environment Tax	2015	Taxes/pricing	Acceptance
16	South Korea	Emissions Trading Scheme	2015	Taxes/pricing	Acceptance
17	Italy	Abrogation of the legal regime applying to nuclear energy production	2011	Phase out	Support
18	Mexico	Carbon Tax	2014	Taxes/pricing	Backlash
19	Mexico	Energy Transition Law	2015	Regulation	Support
		Guidelines establishing and issuing Clean Energy Certificates	2015	Regulation	Acceptance
20	Mexico	Emissions Trading System	2019	Taxes/pricing	Acceptance
21	Turkey	Emissions Trading Scheme	2011	Taxes/pricing	Acceptance
22	Switzerland	CO_2 Act	2013	Taxes/pricing	Acceptance
23	UK	Energy Act	2011	Taxes/pricing	Non-acceptance
24	UK	Energy Act	2013	Regulation^	Non-acceptance

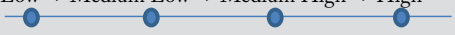
Case no.	Country	Policy (package)	Year	Focal Policy Instrument	Response category
		Carbon Price Floor	2013	Taxes/pricing	Acceptance
25	UK	Finance Act	2020	Taxes/pricing	Acceptance
		The Greenhouse Gas Emissions Trading Scheme Order	2020	Taxes/pricing	Acceptance
26	United States	Clean Power Plan	2014	Regulation	Support
27	United States	Affordable Clean Energy (ACE)	2019	Regulation	Backlash

Appendix 6.2: Interview Questionnaire

Context specific conditions:

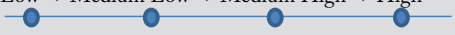
1. To what extent was the political environment polarized when the enactment of Policy Y took place?
    1. Probe: ideological/affective perspectives

    Low -> Medium Low -> Medium High -> High



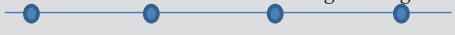
2. In your understanding, were there any other significant public grievances also occurring in Country X at the time that Policy Y was being implemented/enacted?
    1. Probe: economic downturn, cultural conflicts
3. To what extent is public contestation part of the political culture in Country X?

    Low -> Medium Low -> Medium High -> High



    1. Follow-up question**:** Were there any other prior experience of public contestation related to climate policy (protest/mobilization) before this?
4. Zooming out further, to what extent have international and supranational climate agreements put pressure on national climate policymaking in Country X?

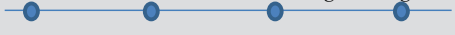
    Low -> Medium Low -> Medium High -> High



Policy specific conditions:

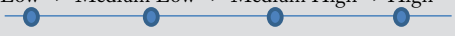
5. To what extent were citizens involved in the policymaking process of Policy Y?

    Low -> Medium Low -> Medium High -> High



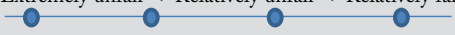
6. To what extent were the costs associated with Policy Y high for people in Country X? (both from material/non-material perspectives):
    1. Probe: material (e.g., economic, financial)/non-material (e.g., symbolic, cultural, emotional)

    Low -> Medium Low -> Medium High -> High



2. Follow-up question: To what extent were the policy costs *perceived as* high by people in Country X?
7. To what extent was Policy Y seen as fair by people in Country X regarding the distribution of costs and benefits?
    1. Probe: Why? Progressive/regressive nature; cultural and entanglement-related factors (e.g., threat to group identity, subjective social status decline, overlooked needs/dependencies)

    Extremely unfair -> Relatively unfair -> Relatively fair -> Totally fair



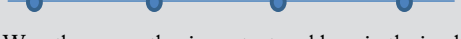
8. To what extent were policy costs transparent and explicit for people affected by it?

    Low -> Medium Low -> Medium High -> High



9. To what extent was Policy Y well communicated to people affected by it?

    Low -> Medium Low -> Medium High -> High



10. Were there any other important problems in the implementation of Policy Y?
    1. Probe: processual characteristics (e.g., adequacy of planning, smoothness of coordination, institutional readiness)

Concluding questions:

1. Summing up, based on your experience, what are the key drivers of policy contention when it comes to climate policy?
2. Would you like to add anything else that we have not discussed yet?
3. Is there anyone else you could recommend talking to about this policy?

Appendix 6.3: Overview of interview participants**

**Based on Supplementary note 4 Anisimova and Patterson (2025):

No.	Sectoral role	Country	Code name	Duration (min)
1	Policymaker	Costa Rica	CRI_1	42
2	Policy analyst	USA	USA_2	49
3	Policymaker	Austria	AUT_3	78
4	Policy consultant	France	FRA_4	40
5	Policy consultant	Canada	CAN_5	55
6	Policy analyst	USA	USA_6	48
7	Policymaker	Chile	CHL_7	49
8	Policymaker	Mexico	MEX_8	46
9	Policy analyst	Mexico	MEX_9	46
10	Academia, policy analyst	Italy	ITA_10	45
11	Policymaker	Canada	CAN_11	32
12	Academia, policy analyst	Japan	JAP_12	48
13	Academia	Japan	JAP_13	50
14	Policy consultant	Turkey	TUR_14	49
15	Policy consultant	Mexico	MEX_15	45
16	Policymaker	France	FRA_16	33
17	Policy analyst	Korea	KOR_17	35
18	Policy consultant	Turkey	TUR_18	42
19	Policymaker	Austria	AUT_19	30
20	Academia, policy consultant	Mexico	MEX_20	46
21	Academia, policy consultant	Japan	JAP_21	40
22	Academia, policy consultant	France	FRA_22	42
23	Policymaker	Mexico	MEX_23	53
24	Policymaker	Austria	AUT_24	40
25	Academia, policy consultant	Germany	DEU_24	40
26	Policy consultant	Colombia	COL_26	40
27	Policy consultant	Colombia	COL_27	38
28	Policy consultant	Colombia	COL_28	50
29	Policy consultant	Turkey	TUR_29	43
30	Policy consultant	Turkey	TUR_30	43
31	Policy consultant	Turkey	TUR_31	43
32	Policymaker	France	FRA_32	44
33	Academia, policy consultant	Switzerland	CHE_32	59
34	Academia, policy analyst	France	FRA_34	57
35	Academia, policy consultant	Canada	CAN_35	55
36	Policymaker	Colombia	COL_36	50
37	Academia, policy analyst	Italy	ITA_37	43

No.	Sectoral role	Country	Code name	Duration (min)
38	Academia, policy analyst	Korea	KOR_38	48
39	Policy analyst	France	FRA_39	45
40	Academia, policy analyst	Switzerland	CHE_40	43
41	Policy analyst	Canada	CAN_41	47
42	Policymaker, policy analyst	Colombia	COL_42	65
43	Policymaker	Switzerland	CHE_43	42
44	Academia, policy analyst	Chile	CHL_44	43
45	Policy consultant	Canada	CAN_45	40
46	Academia, policy consultant	Chile	CHL_46	68
47	Policymaker	Germany	DEU_47	20
48	Policymaker, policy analyst	Costa Rica	CRI_48	61
49	Policy consultant	Italy	ITA_49	53
50	Academia, policy analyst	Germany	DEU_50	53
51	Policymaker	Chile	CHL_51	43
52	Academia, policy analyst	Australia	AUS_52	47
53	Policymaker	Australia	AUS_53	65
54	Policymaker	Costa Rica	CRI_54	51
55	Policymaker	Costa Rica	CRI_55	46
56	Policymaker	Australia	AUS_56	41
57	Policy consultant	UK	GBR_57	54
58	Academia	Korea	KOR_58	48
59	Academia, policy consultant	USA	USA_59	47
60	Policymaker, policy analyst, academia	UK	GBR_60	49
61	Academia, policy consultant	Costa Rica	CRI_61	51
62	Academia, policy analyst	UK	GBR_62	54

Appendix 6.4: Results summary

Condition (from Anisimova & Patterson, 2025)	**Policy problem (Problematized condition)**	**Evidence from primary data (excerpts)**	**Action points**	**Evidence from primary data (excerpts)**
Demandingness [The extent to which a policy makes demands on target groups]	***Policy unaffordability*** [the tension between 'what is needed' to achieve policy goals and 'what is possible' for the target]	"Affordability is crucial" (P35) "cost has always been the problem with carbon pricing; hence, there are concerns about affordability and the costs of living" (P41) "citizens could not afford paying that much" "the burden was too heavy for ordinary people" (P22) "it was the last straw that broke a camel's back" (P34) "The Yellow Vests in France obviously have been a motivating factor in [climate] politics for a while to try to avoid a situation of policy unaffordability" (P24) "…given how high the price tag for these policies is" (P5) "the clash between the ones who are afraid of the end of the world and the ones who are afraid of the end of the month. " (P12) "cost of living is probably something that calls most of the attention of people in this country" (P26)	***Conditional acceleration mechanism***	"Guided by the principle: you're less taxed on what you earn, and more on what you burn" /a "bonus malus" concept" (P12) "Good data and model input underpin the policy expansion but they should include also non-economic parameters" (P42) "It was extremely helpful in our case: the steps of increasing the CO2 levy were very technical. Basically, if some targets by the industry sector were not matched, the CO2 levy was increased, so there was no surprise for anyone" (P43)

Condition (from Anisimova & Patterson, 2025)	**Policy problem (Problematized condition)**	**Evidence from primary data (excerpts)**	**Action points**	**Evidence from primary data (excerpts)**
			Policy layering, bundling, sequencing	"It's more difficult to oppose a ramp-up than a different tax policy where the rate is higher" (P51) "Focus on evolutionary nature of policies and not revolutionary one [through] policy layering and amended continuation of existing policies" (P56) "…put the tax in a bundle with other taxes, i.e., a broader tax reform, so there were less discussion and attention" (P7) "Strategic arrangements such as policy bundling eventually let the bill pass" (P42)
			Gradual and predictable policy pathways	"policy incrementalism rather than policy innovation is crucial to keep it depoliticized"(P52) "policies have been implemented ad hoc and have changed repeatedly over the years, which poses an enormous challenge to manage the [public] expectations" (P41) "Those unrealistic targets without a clear pathway simply discourage the action" (P36) "To facilitate longer-term climate policymaking, we need to analyze also the macroeconomic implications of implementing the decarbonization plan. These is an intellectually cutting edge exercise, it's expensive but this perspective provides valuable ammunition for the political arena" (P49)

Condition (from Anisimova & Patterson, 2025)	**Policy problem (Problematized condition)**	**Evidence from primary data (excerpts)**	**Action points**	**Evidence from primary data (excerpts)**
Unfairness [Presence of features or perceptions that a policy is unfair]	***Ineffective (re) distribution*** [the dual problem of asymmetric distribution and redistribution with the focus on the latter: i.e., tension between having a redistributive policy component in place and making it perceptible and effective]	"The fight is not anymore about climate policy, yes or no. The fight is about distribution and redistribution" (P24) "People would say: Why are you asking the sacrifice from me? The big shot should be affected, not ordinary people" (P12) "concern over big industry players lagging behind pursuing their commercial interests while too much is expected from people" (P3) "This is also a center-periphery problem as the policy hits people outside the capital differently" (P28)	***Built-in redistribution mechanism***	"if you do a responsible climate policy, then you compensate people who lose out" (P24) "I repeat my point on social justice: people will accept more the change if they feel that the effort for it is redistributed in a fair way." (P12) "at least technocratically, we overcame that [perceived unfairness] with designing rebates that were targeting low income households or applied more broadly, to make sure that this was a progressive taxation system rather than regressive" (P45)
			Earmarking/ targeted use	"Subsidies exist but they have a huge free-ridership effect. And that's why subsidies are not effective for reducing climate change. Instead, we need earmarking" (P35)

Condition (from Anisimova & Patterson, 2025)	**Policy problem (Problematized condition)**	**Evidence from primary data (excerpts)**	**Action points**	**Evidence from primary data (excerpts)**
			Eco-social contract	"If you lose the people, the social policies [in the process of climate policymaking], you will achieve nothing. <…> "a plan of the three pillars [is crucial]: economic growth, environmental sustainability, and social justice" (P12) "Connect to a broader agenda as climate policy has the chance to contribute to have a country that's more equal, that's more just" (P44) "Government was pushing for improving education and health system, so they were able to get an agreement to increase taxes" (P46) "Constitution prohibits earmarking, so we turn it into narrative about funding progressive reforms (including free education)" (P51) "Economic justice but also environmental and social considerations are key" (P42) "The economic role of tourism is immense; the moratorium fitted perfectly the eco-tourism narrative and population does realize that" (P49)

Condition (from Anisimova & Patterson, 2025)	**Policy problem (Problematized condition)**	**Evidence from primary data (excerpts)**	**Action points**	**Evidence from primary data (excerpts)**
Lack of information provision [Absence of accompanying information about policy]	***Policy misinterpretation***	"The information vacuum regarding the policy made its implementation difficult" (P28) "acceptance becomes thin, and misperception breeds the suspicion that something is being concealed" (P2) "When you use CO2 tax instrument and roll out a compensation scheme, you should inform people because you cannot rely on these small letters on the bill regarding their health insurance to inform them about this policy" (P33) "Julia Gillard's political messaging was poor, the information her team provided couldn't match the negativity frame out there" (P52)	***Timing***	"adequate timing for a campaign coinciding with companies' internal net-zero pledges" (P56) "it's not good to be ahead of your time in politics – choose the [information] campaign time wisely" (P12) "At some point, it was impossible to say whether the spike in prices was due to an international increase in prices or tax – the information vacuum made it worse" [an external crisis as a timeframe] (P28) "There was not too much attention to the carbon tax as it was smartly put on the agenda: the right-win opposition was busy with their internal re-organization" [ad hoc opportunity for an information campaign] (P46)
			Content	"Effective communication based on the appropriate content" (P19) "That word "tax" makes people afraid, even the politicians." (P12) "Effective communication explaining WHY it is needed and the BENEFIT one gets (such as rebates and clean environment)" (P35) "poor implementation of a great rebates policy – totally obscure and non-explained" (P45) "People don't see how this policy is being a benefit to them" (P28) "effective communication is needed but not everything needs to be explained" (P42)

Condition (from Anisimova & Patterson, 2025)	**Policy problem (Problematized condition)**	**Evidence from primary data (excerpts)**	**Action points**	**Evidence from primary data (excerpts)**
			Form	"Effective media and communication strategy [about the policy] would help enormously" (P53) "[Appeal to emotions: "Irrational/emotional drivers are more impactful for average citizens than rational explanations & decisions" (P3) "…made a point of talking about the incentives and amplifying *independent* reporting about the benefits" (P41) "Make the message about the benefits understandable, less scientific or economic-geek" (P45) "social media became a battle ground" (P27) "an immense effort of our communication team to popularize and bring people on board through different channels including *Relatos del Cambio*" (P49) "we have realized that it's a good business to talk about climate change, preserving the planet and conservation for the future generation – being pro-climate as a business idea to boost competitiveness" (P54)

Condition (from Anisimova & Patterson, 2025)	**Policy problem (Problematized condition)**	**Evidence from primary data (excerpts)**	**Action points**	**Evidence from primary data (excerpts)**
Socio-political polarization [Opposing political beliefs and ideologies, hostility and negative emotions towards opponents]	***Partisan capture*** [the tension driven by the subjective identity-based framing of reality potentially leading to flawed judgements, poor decision-making, and affective resistance]	"[opposition party leader]'s blood oath to cut the tax" (P52) "[the opposition is a political project] and the veil gets pulled over the eyes of an average citizen" (P52) "We're not seeing the public raising concerns [over policy] on their own behalf – it is part of political processes driven by opposition" (P19) "Opposition promoting inaccurate downside narratives" (P45)	***Meaningful participation***	"bring impartial experts back into the discussion instead of marginalizing and politicizing them" (P52) "public consultation is part of standard procedure but more as a display online rather than active solicitation" (P56) "people have the right to be part of policymaking process but they do not use it due to the lack of habit and culture of participating" (P3) "We were a bunch of geeky economists who tried to talk to elite experts and industry, and not much to general public due to the absence of channels" (P45) "intensive engagement through workshops with policymakers and people on the ground was truly instrumental to success. <…> A social dialogue brings into existence technical capacity and not only" (P36)

Condition (from Anisimova & Patterson, 2025)	**Policy problem (Problematized condition)**	**Evidence from primary data (excerpts)**	**Action points**	**Evidence from primary data (excerpts)**
			Coherence and coordination	"Cross-party consensus" (P53) "federalism and its impact on policy agenda: changing of constitutional approach would be required to follow through with the climate agenda top down" (P3) "Coherent structure across institutions that facilitates implementation (from the organizational level" (P19) "the coordination between levels of government" (P41) "Institutional conflict of interests and an open rivalry between the ministries did play a negative role" (P28)

Condition (from Anisimova & Patterson, 2025)	**Policy problem (Problematized condition)**	**Evidence from primary data (excerpts)**	**Action points**	**Evidence from primary data (excerpts)**
			Broader deficits to address	"Distrust is so high that people become not anti- but apolitical" (P22) "robust political donation transparency needed as politicians are incredibly closely wedded to the interests of the fossil fuel industry"" (P52) "Even under conservative government, climate policy didn't come to a standstill — there is some inertia in the system which is good and bad" (P19) "Institutional distrust played a huge role in people not believing that 80% of them actually were benefitting from the policy" (P45) "Chile's strong institutional system was key in pulling through the policy" (P44) "level of informal sector in the economy is more than 50%, so it was difficult to enforce the new regulation" (P26) "lack of robust institutions and weak capacity to support the projects" (P28)

Condition (from Anisimova & Patterson, 2025)	**Policy problem (Problematized condition)**	**Evidence from primary data (excerpts)**	**Action points**	**Evidence from primary data (excerpts)**
			Ownership media structure to diversify	"Obscure political donations together with concentration of media ownership resulted in biased politicians" (P53) "the narrow concentration of media ownership in Australia and the Murdoch media went full on and printed lies like they do now" (P53) "Frequently, it's the media ('yellow press') makes the protest happen, not the streets" (P19) "The policy was clearly communicated to the public. But passing a message doesn't mean that it's necessarily received or understood <…> due to the breakdown in common sources of information and partisan media ownership" (P5)
Lack of climate change concern [Relative de-prioritization of climate change concern within a society]	***Policy legitimacy deficit***	"Weak public mandate" (P2) "the climate denying industry had succeeded in confusing people about urgency, about intensity and about costs" (P53) "…the seed of climate urgency was not ripe enough" (P3) "The general problem with climate policy: it requires this longer term perspective and dedication for a prolonged time period. And whenever you have intermittent crises popping up, they tend to take attention away, people stop caring and then we just sideline the issue again" (P19) "People don't understand the need to decarbonize especially since Colombia is a low-level emitter" (P36) "People are very preoccupied by climate issues and environment, hence, it helps with low-carbon transition" (P1) "having a technically correct answer that cannot be implemented because people don't want it and/or don't care, doesn't actually makes it a technically correct answer" (P49)	***Social advertising***	"Focus on impact-fact-sheets and 'debunking the myths" (P33) "[pro-climate] social ads and governmental campaigns also better off politicians' reputation and create positive image" (P19)

Condition (from Anisimova & Patterson, 2025)	**Policy problem (Problematized condition)**	**Evidence from primary data (excerpts)**	**Action points**	**Evidence from primary data (excerpts)**
			Education curriculum update	"More education is needed on the basics of climate science, people simply do no connect the dots" (P36) "We do pay a lot of attention to climate education and it helps with decarbonization" (P49)
			"Identity-wiring"	"The government does its best in terms of public consultations, social ads, publishing the information on websites, but then people on the ground filter all the information through their own systems of values and worldviews which might undermine what the government says…we need a new identity" (P35) "Important to explain to people why it is important to care for the commons…especially since the individual culture tends to prevail" (P44) "We need to include gender perspectives and mainstream gender in climate polices to be no longer gender blind – a new progressive perspective on identity" (P36) "Cultural reasons underlie the strive for climate action – nature is sacral and it's part of who we are" (P1) "being environmentalists is a fundamental part of the Costa Rica ethos" (P49) "Nature is an integral part of our nation's identity" (P54)

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List of Publications

Anisimova, K. V., & Patterson, J. J. (2024). Public responses to hard climate policies in OECD member countries: prevalence of contention at the post-adoption stage. *Climate Policy*, 1–18. https://doi.org/10.1080/14693062.2024.2409806

Anisimova, K. V., & Patterson, J. J. (2025). Unraveling the conditions for post-adoption contestation over hard climate policy in OECD countries. *Npj Climate Action*, *4*(1), 61. https://doi.org/10.1038/s44168-025-00270-1

Patterson, J., **Anisimova, K.,** Logg-Scarvell, J., & Kaiser, C. (2025). Reactions to policy action: socio-political conditions of backlash to climate change policy. *Policy Sciences*, *58*(2), 287–320. https://doi.org/10.1007/s11077-025-09578-5

Patterson, J., Kaiser, C., Logg-Scarvell, J., & **Anisimova, K.** (2026). Climate policy backlash: taming an unruly concept? *Journal of Environmental Policy & Planning*, 1–28. https://doi.org/10.1080/1523908x.2026.2628706

Zambianchi, V.*, **Anisimova, K**.*, Böttcher, M., Bysani, R. P., Schulze, K., Höhne, C., & Sharma, A. (2026). Varieties of decarbonization: Comparing state narratives of Germany, India, and Mexico. *Energy Policy*, *220*, 115598. https://doi.org/10.1016/j.enpol.2026.115598 [*joint first authorship]

Anisimova, K. V., & Patterson, J. J. (under review). Contested but Not Failed: Rethinking the Relationship Between Backlash and Policy Failure in Climate Policy. *Policy Studies.*

Anisimova, K. V. (ready for submission). Climate Policymaking in Times of Contention: Experts' Insights into Policy Viability.

Patterson, J., **Anisimova, K.,** Logg-Scarvell, J.L., Kaiser, C. (2023) Policy Brief – Backlash to Climate Policy: Causes, Responses, Needs. *Utrecht University, The Netherlands.* https://doi.org/10.5281/zenodo.10124045



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About the Author

Ksenia Anisimova is a researcher specialising in climate governance, public policy, and sustainability. During her doctoral studies at the Copernicus Institute of Sustainable Development, Ksenia examined public backlash to hard climate policies in OECD countries, with a particular focus on the prevalence, conditions, and implications of contentious public responses to climate policy. Her work is driven by a broader interest in understanding how societies respond to ambitious policy change and how governments can design policies that are not only effective, but also viable in the face of political and social contestation. Her doctoral research formed part of the ERC-funded BACKLASH project and brought together comparative, qualitative, and mixed-methods approaches to the study of climate policymaking.

Her research has been published in journals including *Climate Policy*, *npj Climate Action*, *Energy Policy*, and *Policy Sciences*. She has presented her work at major international conferences, including the Earth System Governance General Conference, the European Consortium of Political Research, and the International Public Policy Association, and has conducted a series of research visits at the OECD headquarters in Paris.

Prior to her doctoral studies, Ksenia held research and consulting positions at institutions including Yale University, Dartmouth College, Erasmus University Rotterdam, and the Massachusetts Institute of Technology. Her work has spanned international development, governance, public finance, and climate policy, giving her a broad interdisciplinary perspective on the challenges of designing and implementing public policy.

Ksenia holds a Master in Public Policy and International Sustainable Development from Erasmus University Rotterdam and the Barcelona Institute of International Studies, as well as an MA in Public Administration from Moscow State University. She has also been a visiting scholar at Yale University and Freie Universität Berlin, among other international academic institutions.

Backlash to Hard Climate Policy across OECD Countries:

Patterns, Drivers, and Implications for Policymaking

Hard climate policies (pricing/taxation, regulation, phase-out) are needed for decarbonization yet risk to generate public backlash. However, it remains unclear how often this risk actually materializes, what produces it, and what implications public backlash has for policymaking. So far, these questions have been approached largely from the perspective of single/small-N studies of emblematic cases (e.g., France's Yellow Vests, Australia's carbon tax repeal). To address those questions comparatively, this thesis examines public responses to 50 hard climate policy packages across 21 OECD countries between 2009 and 2022, employing a mixed-methods approach that combines systematic media content analysis, fuzzy-set Qualitative Comparative Analysis, and structured interviews with 62 policy experts.

In the studied sample, backlash is identified as less prevalent than emblematic cases suggest and is likely to arise from combinations of conditions (most centrally policy demandingness and unfairness). In terms of policymaking implications, backlash is found not to be always leading to policy failure: several contested policies kept delivering on their stated goals because they adapted rather than resisted change. The core implication, distilled into a practitioner-grounded repertoire of policy action points, is a shift in hard climate policy design for the post-adoption phase: from trying to avoid contestation toward designing for adaptive viability (i.e., policy capacity to deliver on policy goals while adapting to changing circumstances) in the face of potential backlash.