BERLIN SCHOOL OF ECONOMICS
DISCUSSION PAPERS

Discussion Paper #109

September 2026

Keeping Climate Populism in Check: A New Perspective on Public Acceptability of Net-Zero Policies

Till Armbruster

Elina Dilger

Théo Konc

Linus Mattauch

Keeping climate populism in check: a new perspective on public acceptability of net-zero policies

Till Armbruster[1,2], Elina Dilger[3], Théo Konc[1,2,4], and Linus Mattauch[*1,2,5]

[1] *Technical University of Berlin*
[2] *Potsdam Institute for Climate Impact Research – member of Leibniz Association*
[3] *Department of Geography and the Environment, Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science*
[4] *Wageningen University and Research*
[5] *Berlin School of Economics*

September 12, 2026

Abstract

How damages, economic impacts and policy responses jointly shape the politics of climate change remains poorly understood. In this article, we synthesise the recent wealth of empirical contributions on political outcomes from damages and mitigation policy with a focus on populism. We present a framework connecting climate policies and climate-induced extreme weather events to populist demand, addressing how the rise of populism shapes feasibility of climate policies. The framework comprises income effects, changes in the physical and social environment, behavioural restrictions and symbolic motives induced by climate damages and mitigation measures. We argue that how these elements translate into populist demand depends on both policy design – such as compensation and policy sequencing – and institutional context – such as media framing, procedural inclusion, crisis management and political competition. Climate policies and broader communication on net-zero goals should be designed to prevent climate damages and policy from becoming drivers of populism.

[*]Corresponding author: linus.mattauch@tu-berlin.de. We thank the editors of the special issue and Christopher Adams, Edward Barbier, Inge van den Bijgaart, Franziska Funke, Jonas Kaiser, Zoe Krüger and Ryan Rafaty for useful comments. Zainab Adnan, Valentin Bayas, Luka Fischer and Maria Rösler provided research assistance. Armbruster thanks the German Academic Scholarship Foundation. Dilger thanks the Grantham Research Institute on Climate Change and the Environment. Mattauch thanks the Robert Bosch Foundation.

1 Introduction

Climate policies impose visible, immediate costs on individuals while their benefits are often temporally and geographically distant. They create asymmetric distributional burdens concentrated in specific communities and are often decided at the international level. These features, as we shall show, can increase populism as they can reinforce perceptions of seemingly distant elites imposing rules on citizens. At the same time, climate change-induced damages, which climate policies seek to prevent, are politically consequential. Extreme weather events disrupt livelihoods, expose political failures, and can give populist actors opportunities to mobilise support by assigning blame and framing crises politically.

Understanding how both climate action and climate inaction affect populist demand – the positive attitude of citizens to populist policy – is thus a crucial building block in designing durable climate policies. Earlier research on public acceptability of policies needed for achieving net-zero greenhouse gas (GHG) emissions focused on majority support for specific policy proposals (Carattini et al., 2018; Klenert et al., 2018; Konc et al., 2022; Douenne and Fabre, 2022; Dechezleprêtre et al., 2025; Fabre et al., 2025). More recently, the focus on public acceptability research shifted to understanding opposition to climate policies (Ewald et al., 2022; Funke et al., 2025; Ewald et al., 2026). In contrast, scholarship examining the consequences of climate policy on populist demand remains fragmented across disciplines and lacks a unifying analytical framework.

In this perspective, we present such a framework connecting climate policies and climate-induced extreme weather events to populist demand for Global North countries. We synthesise recent empirical contributions, highlighting the mechanisms through which both climate action and climate damages affect populist demand. We distinguish between direct evidence of populist demand, evidence on electoral backlash or anti-incumbent punishment, and evidence on mechanisms underlying populism demand such as policy acceptability and perceived distributional fairness. The framework includes income effects, the physical and social environment, behavioural restrictions and symbolic motives, representing impacts both on the economic situation and on the identity of citizens.

We argue that whether these elements translate into populist demand depends on two sets of moderating factors. The first concerns policy design, including compensation, policy sequencing, climate adaptation and the intensity of exposure to climate-related costs or damages. The second concerns the institutional and political context, including media framing, procedural inclusion, crisis management and the strategies of political actors. We show that the relationship between climate politics and populist demand cannot be understood through income effects alone. Rather, populist demand emerges from the interaction between the four channels (material, environmental, behavioural and symbolic) and the political context in which the experiences are framed. We conclude by deriving a decision

guide intended to aid policymakers in designing mitigation policy so as not to fuel populism. We organise this guide around the four channels of our framework and illustrate its use with examples of populist opposition or reversal of climate policy from selected countries.

Populism is "thin-centred ideology" (Mudde, 2004), meaning it lacks a full, self-contained philosophical and economic framework. It uses an anti-establishment rhetoric, which conceptualises society as two homogeneous but antagonistic groups: the 'pure people' and the 'corrupt elite' (Mudde, 2004; Mudde and Rovira Kaltwasser, 2017). This narrative is often combined with different ideologies centring around identity such as nativism or nationalism (Müller, 2016) and sometimes authoritarianism (Norris and Inglehart, 2019), usually characterised as right-wing populism. Importantly, populist parties do not share a common ideology. The thin-centredness of their ideology allows populists to have heterogeneous audiences and to attach themselves to different host ideologies, allowing grievances to be framed in economic, nationalist, anti-globalist, or anti-technocratic terms.[1]

A growing body of empirical work examines how climate policies affect political behaviour, and as one facet, populist demand. Bosetti et al. (2025) present an overview of the effects of different mitigation policies on green backlash, including populism, matched with existing case studies and a focus on economic and cultural behaviour. Patterson (2023) and Patterson et al. (2025) develop theoretical frameworks conceptualising backlash as a result of policy close to our understanding. They argue that populist demand is not equivalent to policy backlash, which can be defined as organised opposition to a specific policy (Patterson et al., 2025). Similarly, low public support for a given climate policy or retrospective punishment of incumbents after salient damages are not necessarily evidence of populist demand. Below, we review empirical findings qualifying as either direct evidence of populism when the study measures populist attitudes or voting, indirect evidence when the study analyses policy backlash, rollback or anti-incumbent retrospective punishment, or mechanism evidence when the study analyses policy acceptability, perceptions of fairness or compensation as evidence on mechanisms of populist demand.

Climate change mitigation policies are especially prone to populist contestation. First, combating climate change necessitates large-scale state intervention and policies that expose the population to significant changes and costs. Yet, the causal chain between causes of climate change and its effects is psychologically hard to grasp (Markowitz and Shariff, 2012), for example as damages often occur in geographically distant regions in the future, while imposed costs are salient and present (Weber, 2006; Spence et al., 2012). This creates fertile ground for populist narratives, as voters readily attribute responsibility for costs to

[1] Populism can also attach to pro-environmental or ecological host ideologies both on the left and right of the political spectrum. However, we do not consider these variant here as they are unlikely to become a constraint to successful climate action.

governments (Abou-Chadi and Kayser, 2017). Second, in Global North countries, climate policies can create asymmetric distributional effects. Costs are often concentrated in certain communities, while benefits occur globally (Klenert et al., 2018; Furceri et al., 2023). This concentration of losses makes it easier for populists to employ a 'people vs. global elite' narrative (Bosetti et al., 2025; Patterson, 2023). Last, climate change agreements are often negotiated at the international level. The multi-level governance of climate change further exacerbates the feeling of distance and of 'outsiders imposing rules on us', (Lockwood, 2018).

In addition, climate-induced damages could add a further source of populist contestation (Bosco et al., 2023; Cremaschi et al., 2025). While extreme weather events have often benefited pro-environmental actors by making climate change more salient, this political effect should not be taken for granted as shocks become more frequent, intense, and economically disruptive (Millward-Hopkins, 2022). When populist parties are already electorally relevant, climate damages may instead be politicised as evidence of state failure, insufficient protection, unequal compensation, or abandonment of affected communities.

In sum, climate-related shocks can provide populist parties with opportunities to reinterpret material grievances as evidence of elite neglect or restricted autonomy. Even when income losses are compensated, policies may remain politically vulnerable if they are framed as imposing new ways of life or privileging distant interests over ordinary people. Populist demand might persist beyond the immediate costs of climate policy or that of climate damages. Understanding this dynamic is therefore central to making climate policy politically durable.

With our contribution we thus highlight a new perspective on political feasibility of proven economic insights for delivering on net-zero goals (Fankhauser et al., 2022). As climate policy has moved to the centre of political agendas (Edenhofer et al., 2027), it has also become a more prominent target for populist mobilisation. At the same time, in countries where populism has been growing in the past decade, climate policy can become harder to sustain politically if it activates or reinforces populist mobilisation. We argue that its political feasibility is therefore conditional on how well climate policy is designed to be populism-proof.

2 Antecedents on populism

The body of literature examining populism can generally be divided into studies on the demand side, examining the drivers of populist attitudes and vote choice, and the supply side of populism, analysing the emergence of populist parties and their strategies, with

the two sides interacting to shape the rise of populism (Guiso et al., 2017). This article will focus on the factors increasing populist demand and their intersection with climate policies and climate change-induced damages. While our focus is on the factors classically discussed when examining the demand side, we treat supply-side factors such as political narratives, party strategies, framing and political competition as conditions under which demand-side drivers translate into expressed populist demand.

Climate policies and climate damages are not primary drivers of populism, they rather contribute to existing mechanisms increasing it. To identify and understand these mechanisms and how climate-related changes might activate them, we draw on established scholarship on populist demand. Instead of providing an exhaustive overview (see Guriev and Papaioannou (2022) and Norris and Inglehart (2019)), we focus on three main drivers of populist demand that are affected by climate shocks: (a) economic insecurity and material costs, (b) status loss and place-based decline, and (c) identity, autonomy, and cultural threat. Additionally, crises can amplify each of these three mechanisms but do not constitute a separate driver.

First, the relationship between economic insecurity as well as material costs and populist demand is well documented by existing research. Unemployment, increased labour market risks, income difficulties and exposure to macroeconomic shocks such as the 2008/09 financial crisis, the Euro area crisis or the China shock have all been linked to higher populist support (Guiso et al., 2024, 2017; Guriev and Papaioannou, 2022; Rodrik, 2017; Autor et al., 2020; Algan et al., 2017). So have labour market changes like relative occupational downgrading or the perception of relative economic decline (Kurer, 2020), lower wages and inter-generational downward mobility (Jacobs and Kayser, 2025). The relevance of this finding for climate policy is straightforward: many climate policies increase prices, impose costs and change labour markets which could contribute to populist demand.

Beyond direct economic hardship, perceptions of declining social standing contribute to populist demand, whether rooted in material or cultural change (Gidron and Hall, 2017; Ferwerda et al., 2024; Kurer, 2020). Importantly, these perceptions are shaped by local context: citizens who perceive economic decline in their community hold higher populist attitudes, even when their own circumstances have not changed (Arzheimer et al., 2024; Giannoni, 2025; Norris and Inglehart, 2019; Rodríguez-Pose, 2018). This mechanism is relevant to climate policies that change specific sectors and places, or to localised climate damages. A classical example is coal phase-outs leading to regionally concentrated unemployment.

Another body of literature argues that cultural and identity-related factors impact populist demand independently of, and perhaps more strongly than, economic grievances (Margalit, 2019; Oesch, 2008; Inglehart and Norris, 2016; Norris and Inglehart, 2019). This

account emphasises identity, status, and value-based concerns – such as national identity, resistance to cultural change, or resentment of a perceived cosmopolitan elite – as drivers of populist support that operate largely independently of individuals' material circumstances (Margalit et al., 2025).

Crises amplify all of the above. They contribute to economic and social insecurity, expose institutional shortcomings, and erode trust in the government (Guiso et al., 2019; Algan et al., 2017; Guriev and Papaioannou, 2022; Rhodes-Purdy et al., 2021; Ward et al., 2024). When such trust is low, the same policy shock or natural disaster is far more likely to be read as evidence of elite failure and channelled into populist demand.

These mechanisms are highly relevant for climate politics because effects from climate change damages or climate policies can affect precisely the material, social, cultural, and institutional conditions through which populist demand emerges. Climate policies may create visible costs, alter everyday practices, and attach symbolic meaning to particular lifestyles or occupations and are directly attributable to political decisions. Climate-induced damages, by contrast, are usually perceived as exogenous shocks and may disrupt livelihoods, expose failures of preparedness or compensation. Neither mechanically produces populism; rather, both can activate existing grievances when they are experienced as unfair, imposed or interpreted through narratives of elite distance and ordinary citizens' loss of control. In the following two sections, we review the evidence for when mitigation or damages can increase populism.

3 Explaining mitigation-induced populist demand

Prior scholarship on the political consequences of climate change mitigation policies does not provide a systematic account of how they lead to support for populist actors. Policy measures such as carbon pricing, regulatory standards, or bans do not merely alter prices, employment risks, and consumption possibilities. They also signal whose livelihoods are being targeted, whose practices are seen as legitimate, and whose futures are prioritised. The following subsection presents a simple conceptual framework to explain why climate mitigation policies can lead to populist demand, identifying the channels through which this occurs. Subsections 3.2–3.5 review empirical findings on climate populist demand and how they substantiate the framework.

To be clear, we limit our analysis of climate change mitigation policies to macro-level economic policies that reduce GHG emissions. Those we cover are the mitigation policies – carbon pricing and fossil-fuel disincentives, regulatory bans and mandates, renewables and infrastructure deployment – which are almost entirely the focus of climate populism

in Global North countries.[2] Such policy instruments differ in the temporal occurrence of their benefits: some impose costs that are felt today, while others such as renewable deployment create near-term benefits such as jobs or lower energy prices. Where relevant to our argument, we also consider broader environmental policies (for example, low-emissions zones, congestion charges and nitrogen quotas) that have similar effects, as they illustrate the channels through which climate policy design can lead to populist demand.

3.1 Conceptual framework

The purpose of our framework (see Figure 1) is to link climate policies to their transmission channels for populist demand. Conceptually, effects that capture how citizens are exposed to the policy impact can be understood as elements of voters' utility functions that are affected by policy implementation. We group these policy-induced shifts into four categories: income effects, changes in the social and physical environment, behavioural restrictions and symbolic motives. One policy can operate through more than one of these channels.

Whether climate policies translate into populist demand depends on policy design – moderating the policy impact – and the institutional context – moderating the political interpretation. Policy design moderates the magnitude and distribution of the objective burden generated by climate policies, whether it feels coercive to citizens, and whether it is attached to a particular narrative. In this sense, the design of a policy shapes the degree of political backlash it is likely to face. Yet political backlash or limited public support does not automatically translate into citizens supporting populist parties. For such backlash to generate populist demand, additional contextual conditions must be present. The institutional context moderates how policy-induced changes are interpreted, perceived and politically attributed. We understand institutional context as the set of features external to a policy's own design. For example, whether policy impacts translate into populist demand depends on how the impacts are politicised, e.g., through media coverage. It also depends on whether affected groups are included in the policy process, and whether a political party exists that can provide an electoral platform to policy grievances. In addition, the supply side affects populist demand. Populist actors can select and amplify features of a policy and frame them as elite imposition. Poor design of climate policies can thus lead to strategic instrumentalisation by populists to advance their agenda. From a policy perspective, both moderating the policy impact through instrument design and moderating the political interpretation through institutional measures offer levers to minimise populist demand (see Section 5).

In earlier scholarship on public acceptability, the central question has been one of public support for specific climate policies. Many studies exist on how climate policies

[2]Other policies could of course become focal points for populist demand as they reshape material or identity grievances in the future.

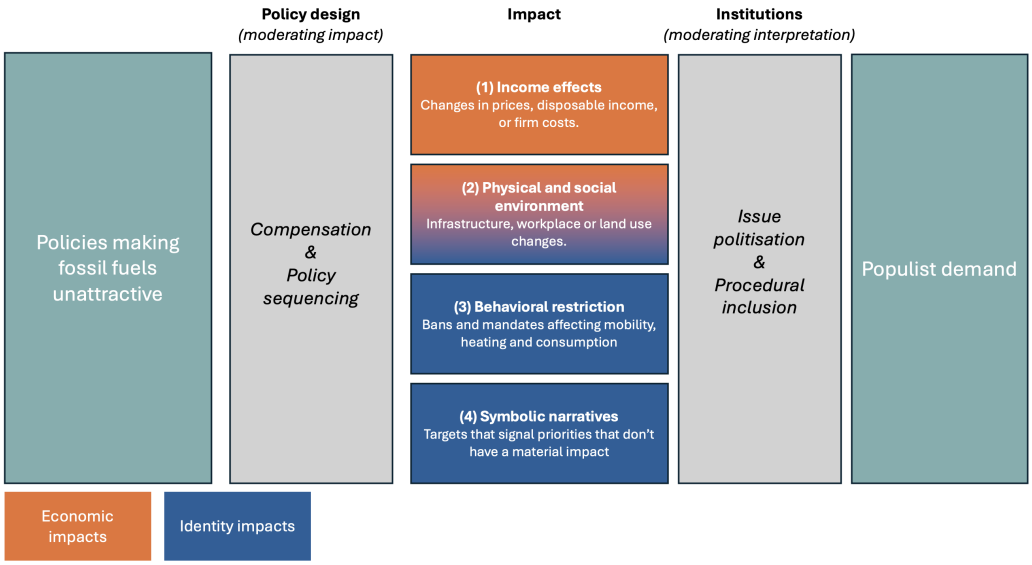


Figure 1: Conceptual framework explaining mitigation policy-induced populist demand. We distinguish four different channels including income effects, physical and social environmental change, behavioural restrictions, and symbolic motives. Policy design predominantly moderates the objective burden generated by these policies, while institutional factors largely shape how it is perceived.

affect citizens' living conditions and how these effects are moderated by policy design (see Maestre-Andrés et al., 2019; Mohammadzadeh Valencia et al., 2024, for reviews). Prior work found two important aspects when moderating the impact of policies on approval. First, compensation should be designed around policy vulnerability: policymakers need to identify who is materially exposed to a given policy and compensate affected households, workers, or communities accordingly (Gaikwad et al., 2022; Klenert et al., 2018). Second, policy sequencing can have an influential role: specific benefits, appropriate infrastructure, and feasible low-carbon alternatives should be introduced before more costly or restrictive measures (Meckling et al., 2017; Pahle et al., 2018). This body of scholarship does not imply that lack of compensation or improper sequencing necessarily leads to populist demand. It does, however, provide evidence on features of climate policy that could be framed in populist terms.

3.2 Income effects

Policies such as carbon pricing, fossil fuel subsidy reform, energy efficiency standards, or fuel economy regulations activate conventional financial and retrospective voting mechanisms, as voters evaluate governments based on observable changes in living costs, wages, and job security. For Europe, Konradt and Mangiante (2026) find that higher carbon market prices in Europe reduce emissions, but also depress output and employment in carbon-intensive regions, which, they show, raises support for populist parties. The popularity of such parties does not increase with higher carbon taxes, which is consistent with revenue recycling acting as an important policy design lever to reduce populist demand, though Konradt and Mangiante (2026) do not directly test this mechanism. In addition, costs are amplified when policy changes occur with pre-existing insecurity, and are attenuated when inequality is low and social insurance strong, as Furceri et al. (2023) show for government popularity (rather than populist demand specifically).

Four studies conducted in member states of the European Union (EU) corroborate this picture. In Milan, Colantone et al. (2024) find, as a consequence of a combustion engine ban, that owners of banned, polluting vehicles, who incurred a median loss of € 3,750, were more likely to vote for the populist party Lega in the subsequent election. The effect was much weaker for citizens who had been compensated. In the Netherlands, a tax shift, which raised household costs for energy, increased radical right support among renters who directly bear the cost burden by 5 to 6 percent (Voeten, 2025).[3] In Sweden, rising electricity costs similarly increased the radical-right vote share (Brännlund and Peterson, 2024) across municipalities. Lastly, Konc et al. (2026) show that German households who faced large increases in electricity costs in the aftermath of the Russian war on Ukraine increased their

[3] A limitation of this study is that radical right parties were the only opposition to climate policies. Hence the increase in radical right support could also be due to simple policy backlash.

support for the major right-wing populist party, the Alternative für Deutschland (AfD). The political effects of increased costs were particularly pronounced when compensation measures were still lacking or not sufficiently salient. Although not all the cost increases examined are directly caused by climate policies, the findings provide evidence that salient costs can increase populist support.

In addition to own economic cost of climate mitigation policy, fairness perceptions about the distribution of economic costs may also shape how policies generate opposition and stimulate populist political platforms. Rather than providing direct evidence on the link between fairness and populist demand, a number of studies instead characterise how climate policies lead to perceived distributional burden: Douenne and Fabre (2022) find that French respondents after the Yellow Vests protests wrongly assumed that a carbon tax with a lump-sum rebate is regressive (and environmentally not effective). Swedish survey evidence shows perceived fairness and trust in the government are the decisive factors for support for carbon taxes (Ewald et al., 2022). Tatham and Peters (2023) further find that opposition to fuel taxation is larger among citizens facing high individual costs, while redistribution to low-income households narrows those gaps. Im (2024) also shows that decarbonising regions display stronger perceptions of economic and political unfairness when they also experience an employment decline.

The repeal of Ontario's cap-and-trade programme shows how such perceived unfair distributional burden may increase populist demand. Raymond (2020) argues that using carbon pricing revenue to interest groups and economic development, rather than to compensate consumers, left the policy exposed to a populist attack centred on energy prices. However, Lachapelle and Kiss (2019) find for the 2018 Ontario general election that carbon pricing *per se* was not among the strongest predictors of support for right-wing populists, suggesting the policy was a useful populist foil rather than the decisive driver of the vote.

Finally, several studies explicitly consider how institutional background moderates the link between financial or fairness concerns and populist demand. Looking at the Yellow Vests movement in France, Driscoll (2023) shows that people did not only reject climate action but framed carbon taxes as corrupt, unjust and employed anti-elite narratives. This narrative could have gained traction because the increase in fuel tax was part of a broader fiscal reform, which decreased taxes on capital. Similarly, Copland (2020) shows how, in the debate surrounding Australia's Clean Energy Act in 2011, emissions trading was framed as serving a class of liberal elites at the expense of workers, a narrative of distrust in political elites rather than an economic objection. In addition, Gettins and Meister (2025) show for Germany that narratives emphasising perceived disproportionate burdens on low-income households increase a form of "climate-populist" attitudes and are especially pronounced among low-income, East German, and conservative voters. Instead, a narrative of companies evading the cost of climate change mitigation increases climate

populism among left-leaning individuals.

3.3 Physical and social environment

Some climate policies visibly transform local environments, infrastructure, and working conditions independently of immediate price effects. Coal phase-outs reshape regional labour markets and landscapes in mining areas. Renewable energy expansion may generate land-use conflicts related to wind or solar installations.

One instance of this is the decline of fossil-fuel regions, which offers lessons for understanding climate populism. In US coal regions, the Republican vote shift exceeded what job losses alone can explain, with the strongest effects where coal employment was locally central and incomes already low (Egli et al., 2022). Unions can further amplify this effect by informing its members of the impact of new climate policy, increasing opposition (Gazmararian and Krashinsky, 2023). Heddesheimer et al. (2025) show that the status of occupations in polluting sectors is associated with voting for the AfD in Germany. They find little evidence that the voters had already incurred any losses. Thus, the mechanism seems to run through perceived stigma and lower social status or anticipation of losses. Not all backlash immediately benefits a populist party, but it weakens mainstream representation in ways that later open the field to populist challengers (Stutzmann, 2025). These effects can be seen as a combination of economic and identity impacts: job losses and related hardships have a clear economic dimension, while perceived status loss also reflects identity concerns.

Two institutional factors shape whether these impacts translate into populist demand, while pointing in opposite directions. On the one hand, populist parties may amplify the effect by using the regional concentration of policy impacts to politicise the issue, framing climate politics as a conflict over identity and representation, while also seeking to weaken the regional institutions that enable decarbonisation. Yazar and Haarstad (2023) show that populist parties in Estonia, Poland, and Germany portray themselves as protectors of vulnerable groups affected by regional decarbonisation and use regional identity to mobilise civic engagement against the transition. On the other hand, procedural inclusion through tripartite social dialogue between policymakers, affected workers, and employers, as envisioned in "just transition" strategies (Smith et al., 2017), can produce the opposite effect. Bolet et al. (2024) shows that such agreements in the context of coal phase-outs can bolster political support for the incumbent party, instead of leading to expected populist support. Thus, redistributive policies targeted at affected communities, when developed through inclusive social dialogue, can make stringent climate policies electorally successful even among fossil fuel-dependent communities (Bolet et al., 2024).

Furthermore, the deployment of wind turbines and solar farms reshapes local environ-

ments politically, economically and physically. Nearby residents are often concerned about these impacts of wind and solar deployment (Bessette et al., 2024).[4] Stokes (2016) analyses the political effects of wind deployment in Ontario, finding that citizens living within 3 km of wind energy projects retrospectively punished the incumbent party responsible for the policy, with vote losses ranging from 4 to 10 percent. While it is not direct evidence of populist demand, Stokes (2016) shows that resistance by a small group of spatially concentrated citizens with strong preferences can lead to a rollback of policies. This points to the importance of local resistance in obstructing these policies, which could be framed as elites changing the living environment of people. In addition, Otteni and Weisskircher (2022) find that the construction of wind turbines in Germany has polarising effects on political outcomes, increasing vote shares for both the populist right and the main pro-environmental party.

Populist parties politicise such deployment for strategic reasons rather than from a coherent ideological position (Weisskircher and Volk, 2026). They frame their opposition to climate action as part of a broader rejection of green hegemony, thereby presenting themselves as the political platform for those resisting local renewable energy projects (Weisskircher and Volk, 2026). Specifically, Widmann (2025) finds that wind-turbine construction leads populist radical-right politicians in Germany to use more negative moral-emotional appeals. Turbines become symbols through which populist parties moralise climate policy and potentially polarise the political landscape through their communication. In addition to specific populist communication, trust in government is central for explaining lower support and right-populist attitudes in cases of wind-turbine deployment (Fanghella et al., 2025).[5]

Beyond trust, a further moderator of how communities interpret such infrastructure and landscape changes is the inclusion of local communities in decision-making (Liebe et al., 2017). This connects to the local-resistance dynamic highlighted by Stokes (2016). Roddis et al. (2020) show that consultation processes with local stakeholders are an important factor, as is compensating local communities for the impacts of solar farms. Similarly, Bessette et al. (2024) find their perceptions improve through more in-person engagement, more explicit discussion of project trade-offs, and local economic benefits, again pointing to procedural inclusion and economic benefits as important dimensions. When renewable energy projects bring visible local economic benefits these projects can even increase the vote share of the incumbent party rather than a populist wedge, as Bayulgen et al. (2021)

[4]The economic costs through visual effects of wind turbine deployment are rather small as Guo et al. (2024) showed for property values within a turbine's viewshed.

[5]They do not find a relationship between political orientation and solar support, which hints at that wind might be more politically contentious than solar energy in many contexts (Fanghella et al., 2025). This contrasts with the findings of Weisskircher and Volk (2026), who show that at least populist party manifestos strongly politicise solar energy deployment.

discuss for the case of wind turbines in Minnesota. While these studies speak to local acceptance rather than populist demand directly, they identify the procedural grievances that populists can subsequently mobilise.

3.4 Behavioural restrictions

Certain climate policies operate through behavioural restrictions. Bans, mandates or pricing that prohibit or discourage specific practices directly impact mobility, heating, or consumption decisions. Such measures can generate resistance rooted in perceived losses of autonomy or identity-related concerns about state intervention (Schmelz and Bowles, 2025).

One important example of this channel that has attracted empirical research is the introduction of new road tolls. While road tolls are not primarily climate policies, they provide evidence on the political responses to measures that restrict driving and incentivise a shift away from combustion-engine cars. Introducing and increasing existing toll rates in Norwegian cities and surrounding urban areas in 2019 led to an increase in votes for a populist party that politicised them. Aasen and Sælen (2022) find that opposition to these tolls is strongly correlated with a populist, anti-elitist narrative in which these new policies are perceived as top-down restrictions imposed on 'the people'. Wanvik and Haarstad (2021) argue that for the case of the tolls implemented in the Norwegian city of Bergen the divide between politicians as elites and the people goes beyond resistance to road tolls and also applies to sustainability transformations, which are perceived as favouring urban lifestyles at the expense of suburban lifestyles.

In this case, the populist challenge coming from a new right-wing party did not focus on the economic or inequality dimensions of the policy, but on the link between car use, freedom, and autonomy. It thereby politicised the financing of new public transportation through road tolls as an anti-social constraint and used narratives of "the elites" implementing restrictive policies against "the people" whose autonomy is restricted (Remme et al., 2022). By contrast, for the Milan combustion-engine ban discussed in Section 3.2, Colantone et al. (2024) find that Lega's gains among affected car owners were driven mainly by financial considerations rather than by threatened autonomy.

Another example of climate policies that might lead to perceived behavioural restrictions of autonomy are bans on specific forms of heating homes. In 2023, a preliminary German government proposal was leaked that planned to ban the new installation of conventional gas heating systems, the dominant heating technology at the time, from the following year onwards. Kistinger et al. (2025) find that the material costs of the policy led to relative gains for the right-wing populist party AfD. However, the opposition campaign against the heating law, led by the right-wing populist AfD and tabloid media, focused on restricted autonomy and a perceived form of political exclusion, constructing a divide

between the people and the ruling elite (Haas et al., 2025; Loschke et al., 2026; Kramer et al., 2026).

Furthermore, although the Ultra-Low Emission Zone is primarily an air-quality rather than a net-zero measure, its expansion in London illustrates a similar dynamic: it triggered a populist media campaign that framed it as a "war on drivers", which again did not primarily focus on the material consequences of the policy, but on the restrictions on behaviour (Atkins, 2026). The electoral evidence, however, is weaker than the campaign's prominence suggests: McNeil and Mitsch (2025) find only minor and inconsistent effects on the incumbent Labour vote. This gap between salient populist framing and measurable vote shifts illustrates that politicisation does not mechanically produce populist demand. Taken together, empirical evidence shows that behavioural restrictions, such as vehicle bans or heating reforms, can be linked to increased support for populist parties and points to the role of media campaigns in shaping these policy issues in a populist frame.

3.5 Symbolic motives

Climate policies have symbolic dimensions. Beyond how they change costs, benefits or behaviour, it can matter what they communicate about government intentions, social norms, fairness and the position of different social groups. We call this dimension of climate policies symbolic motive.[6]

In fact, some policies operate mainly through the meaning they communicate rather than through behavioural restriction or economic costs and benefits (Tallent et al., 2026). An example of such symbolic measures is requiring politicians to take the train instead of the plane, which may have little direct effect on emissions, but signals that political elites accept responsibility for climate action. In their mixed-methods study, Tallent et al. (2026) find that symbolic policies increased support for more costly or restrictive climate policies possibly by improving the perceptions of fairness, elite behaviour and government credibility. The symbolic motive of a policy is therefore itself a policy channel: it affects support by changing how citizens evaluate the government and the policies it implements.

Perceptions of the symbolic motive of a climate policy can produce both opposition and support. Climate action may be interpreted as imposed by unresponsive elites, as unfairly targeting ordinary citizens, or as treating certain ways of life as morally inferior. Tallent (2026) shows that rural residents often interpret practices such as car use, detached housing

[6]The term symbolic policies (Boussaguet and Faucher, 2025) is used in different senses in the wider scholarship: Tallent et al. (2026) use it to mean policies with low material impact but high communicative content, while a separate strand of work uses it more critically, to describe targets or framework laws that signal seriousness without the implementation or sanctions needed to deliver on them (Bache et al., 2015; Torney, 2019). This section focuses on the first meaning

and local land use as symbols of freedom, self-reliance and belonging. Climate policies can thus be experienced as threats to rural identity, local autonomy and the status of rural communities (Tallent, 2026). In these cases, symbolic interpretation of climate policies can generate anti-elite sentiment and status-threat responses even when the actual material costs are minimal. This connects to a more general finding that populist opposition to climate policy is often fuelled by distrust in elites and by the belief that politicians exploit climate change for political gain (Meijers et al., 2023). In contrast, symbolic measures that visibly constrain elites may reduce populist demand, while symbolic gestures later exposed as empty promises risk reinforcing it (Huber et al., 2020; Biesbroek and Lesnikowski, 2023). Whether constraining elites in this way necessarily reduces populist demand has not been sufficiently studied yet to draw a clear conclusion. It is plausible that symbolic measures can either weaken or reinforce anti-elite interpretations, depending on how they are received.

The symbolic dimension of a policy can also interact with the effects of other climate-policy channels. Economic costs, behavioural restrictions or changes to the social or physical environment are interpreted through narratives about fairness, responsibility and trust. For example, Drews and Konc (2026) show that perceiving large inequalities in carbon footprints between top emitters and the rest of the population can increase support for costly climate policies, though these effects may also operate through personal costs rather than fairness alone (Beiser-McGrath and Busemeyer, 2024). Relatedly, Whitmarsh and Corner (2017) show that broadly engaging, non-divisive narratives such as framing climate action as 'not wasting resources' or 'great British energy', can help climate communication reach otherwise disengaged audiences.

Whether citizens perceive the symbolic motive of a policy depends on institutions: Political actors and the media can even actively frame a policy to hold a certain symbolic motive, thereby shaping how citizens interpret the policy (McHugh et al., 2021; Nisbett et al., 2025). Thus, the symbolic dimension of climate policy can have two distinct roles. When the policy primarily operates through the meaning it communicates, its symbolic motive is the direct channel affecting populist demand. When it changes how citizens interpret other channels such as material impacts or behavioural restrictions, it operates as a moderator.

4 Does damages-induced populist demand exist?

Comparatively little is known about whether recent extreme weather events affect populist demand specifically. So far, pro-environmental parties have provided the clearest political platform for salient damages, as they have been able to connect these shocks to the broader issue of climate change (e.g. Hoffmann et al., 2022). Populist parties, however, might

succeed if they are able to disentangle the economic shocks caused by extreme weather events from climate change and present them as a broader political issue. When populist parties are in the opposition, this could be particularly effective if they frame affected citizens as being left behind by current governments, for example through insufficient relief payments or inadequate support. In this case, the central conflict is not that elites impose a new way of life against "the people", which is one of the main angles in many debates on climate policy, but rather that the political sphere abandons citizens facing the costs and disruptions of climate damages. When populist parties are part of the government, they can make use of natural climate shocks to claim state capacity while maintaining a populist people-versus-elites narrative. Such framing may become more powerful as climate shocks and populist vote shares increase, while climate change as a mobilising political platform loses salience and the economic dimension becomes more central.

4.1 Conceptual Framework

Shocks induced by climate policy and shocks induced by climate change through extreme weather events differ in important respects. Climate policy reforms originate in political decisions and are therefore directly attributable to incumbents. Damages in the form of natural climate shocks such as floods, droughts, or storms, by contrast, are usually perceived as exogenous events beyond direct political control. In these cases, political accountability arises less from the occurrence of the shock itself than from preparedness, adaptation, and disaster response. Whether governments are blamed or rewarded therefore depends on context, crisis management, and political communication rather than on the event as such. In particular, extant scholarship already suggests a plausible negative feedback path that deserves attention in a context of increasing climate-related disasters and rising populist mobilisation (Millward-Hopkins, 2022; Laybourn et al., 2023).[7] Some of the shifts in living conditions that matter in the case of climate policy also appear relevant for extreme weather events.

Figure 2 depicts a framework for potential impacts on citizens' living conditions through which natural climate shocks may affect populist demand. As in the framework presented in Section 3, the changes in the social and physical environment are economic as well as identity related. The political consequences of climate damages depend on the severity of the physical impacts, which can be mitigated through adaptation policies. Furthermore, whether these damages boost populist demand depends on their politicisation (e.g. through media campaigns) and the perceptions of the government's response (e.g. relief payments).[8] The channels through which climate damages might change political attitudes and populist

[7] We do not review the extensive scholarship, starting with Spence et al. (2011), on how extreme events change individual climate beliefs, which addresses a different question from their effects on populist demand.

[8] We do not systematically address the effect of climate adaptation policies on populist demand, as the mechanisms underlying their politicisation could differ substantially.

demand are less clearly separable. While mitigation policies can target specific channels (e.g., behavioural restriction or infrastructure change), extreme events tend to generate multiple impacts simultaneously. Indeed, existing studies rarely identify clear mechanisms.

4.2 Empirical findings on the effects of climate damages

Damages create private economic costs arising from affecting property, income losses, or other material burdens, as reviewed by Botzen et al. (2019). In addition, climate impacts change social and physical environments through altered working and living conditions, for example by destroying workplaces, damaging infrastructure, disrupting local industries, as well as displacing people. Economic impacts include that floods or hurricanes may alter where people live and work (Deryugina et al., 2018), temperature extremes may affect how much people work (Graff Zivin and Neidell, 2014), and increasing plant diseases may affect agricultural production and food security (Singh et al., 2023).

Damages further affect ideological or cultural dimensions of life, as they may threaten and break community cohesion or senses of place (Adger et al., 2013), as well as create psychological stress through unfolding environmental changes around one's home (Albrecht et al., 2007). There is thus sufficient reason to expect that climate shocks disrupting living conditions can alter citizens' political attitudes. These disruptions do not necessarily imply populist demand, but could contribute to populist sentiments when damages are attributed to elites' shortcomings, unequal compensation or state neglect when populists are in opposition.

We briefly synthesise relevant political effects of climate shocks in general, especially on support for pro-environmental parties as the baseline against which the populist cases stand out. A sizeable body of research documents pro-environmental parties' responses to climate-related shocks. Floods increase pro-climate voting in Swiss referendums (Baccini and Leemann, 2021), wildfire exposure raises support for climate ballot measures in California's Democratic areas (Hazlett and Mildenberger, 2020), and temperature extremes increase voting for pro-environmental parties across Europe (Hoffmann et al., 2022; Garside and Zhai, 2022; Holub and Schündeln, 2023; Damsbo-Svendsen, 2024; Kronborg et al., 2024). At the same time, this pattern is not uniform. A study from Australia finds weaker evidence (McAllister and bin Oslan, 2021), similar to a study of a flood in Germany in 2021 finding little evidence of a local pro-environmental effect when combining fine-grained survey responses with electoral data (Hilbig and Riaz, 2024).

Crisis management itself largely determines how natural disasters translate into electoral punishment (Gasper and Reeves, 2011; Cole et al., 2012), and voters do not seem to value ex ante investments in crisis-preparedness (Healy and Malhotra, 2009). Governments and institutions hesitating to offer relief payments, or failing to deliver promised economic

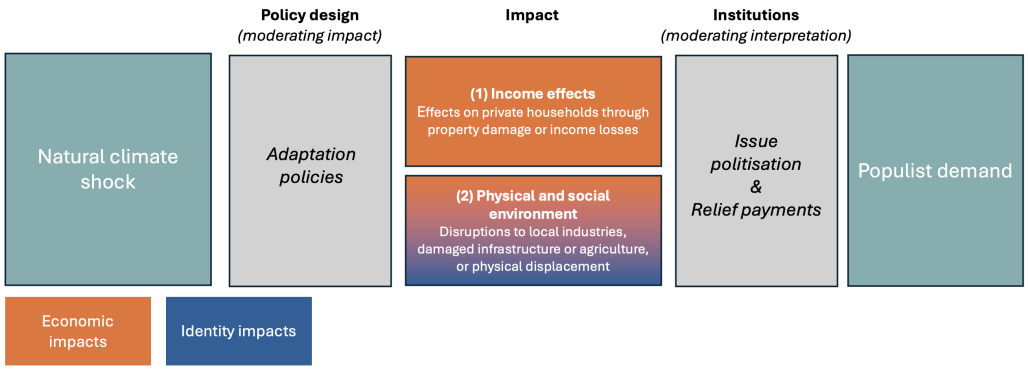


Figure 2: Conceptual framework explaining potential populist demand induced by climate damages. Natural climate shocks, such as extreme weather events affect voters through two main channels: direct economic costs as well as social and physical environmental change. Forward-looking policy design, especially implementation of adaptation policies, moderates the impacts generated by natural climate shocks, while institutional factors shape how these impacts are perceived, attributed, and politicised.

relief, might lead to increased distrust in the affected communities, which drives them towards populist parties (Bosco et al., 2023). By contrast, voters can reward incumbents for successful post-disaster relief (Bechtel and Hainmueller, 2011; Eriksson, 2016; Fukumoto and Kikuta, 2024; Akarca and Tansel, 2017) with media exposure of local incumbents as a potential mediator (Masiero and Santarossa, 2021). A successful management of natural disaster responses can also signal political capability. Incumbents experience positive electoral effects if they are able to use the crisis to demonstrate governmental competence (Cooperman, 2022). This may be particularly relevant when populist parties are in government and use natural shocks to claim state capacity. Recent scholarship suggests that these accountability effects are politically filtered: Heersink et al. (2020) show how partisan attachment shapes whether and how blame is assigned after natural disasters in the US as voters are less likely to punish incumbents from their own party for disaster mismanagement and more likely to punish out-party incumbents. Studying retrospective voting effects after natural disasters in India, Blankenship et al. (2021) show that voters punish only incumbents who are not aligned with the government leader's party and thus with limited access to relief resources. While this body of literature covers retrospective voting and incumbent accountability in general rather than populist demand specifically, it identifies the conditions of blame and reward through which populist parties can convert disaster response into electoral gain.

A few studies explicitly examine how populist parties can benefit from climate damages. The 2018 Vaia storm in Northern Italy led to increased support for the radical-right incumbent Lega, while pro-environmental or left-wing parties did not experience electoral gains (Cremaschi and Stanig, 2025). This finding suggests that visible relief capacity and pre-existing ideological context can override any simple effect of environmental concern: since Lega was already the dominant regional party and delivered fast, salient storm relief, voters credited it for competent crisis management rather than punishing it for climate inaction (Cremaschi and Stanig, 2025). However, where recovery fails, institutional trust erodes and populist parties are in opposition, local shocks can fuel authoritarian right-wing voting rather than pro-environmental backlash (Bosco et al., 2023). Similarly, Cremaschi et al. (2025) analyse the political effects of a sudden plant disease epidemic in Puglia, Italy.[9] This epidemic led to the death of olive trees that were central to the region's socioeconomic structure. Using a mixed-methods approach, they find that the material costs caused by the plant disease increased the far-right vote share. In addition, they show that pre-existing public service deprivation exacerbated the political consequences of the shock by strengthening a narrative of state neglect (Cremaschi et al., 2025).

This indicates that natural disasters and their consequences alone do not directly translate into populist demand but that it depends on the policy design to adapt for or react to them.[10] In addition, political supply from populist parties, framing the event and conducting active agenda setting to channel the political effects of natural disasters matters for whether impacts yield populist demand (Albrecht, 2022; Wyss and Chiru, 2026). In addition, more general work on populist communication helps clarify why such strategies may be electorally effective, showing that populist blame frames can increase support for populist parties by constructing elites as responsible for salient public problems (Hameleers et al., 2018). [11]

[9] Such a shock is not a classical extreme weather event, but rather a form of natural shock that may become more frequent with climate change.

[10] Evidence from Global South countries points in a similar direction. In Chile, flood exposure increased support for non-mainstream candidates (Visconti, 2022), which is an anti-establishment shift that is suggestive of, but not equivalent to, populist demand. Cerkez (2025) finds that drought exposure reduces support for democracy across 16 sub-Saharan African countries, an effect concentrated in established democracies and operating through exposure to autocratic governance models and not through income losses. This underlines the fact that political consequences of climate-related shocks cannot solely be reduced to their material impact.

[11] On climate shocks specifically, Wappenhans et al. (2024) study whether extreme events increase the attention of political parties on environmental topics, analysing press releases around these events. However, they do not find an effect besides for pro-environmental parties.

5 Policy Implications

Populists have widely politicised climate change recently, as inaction on it serves their agenda in many instances. Making climate policy resilient to such strategies and ensuring that it does not itself contribute to populism is thus crucial for successful climate action. Building on the conceptual frameworks and the evidence presented in Sections 3 and 4, we discuss measures to mitigate the populism-demand effects of climate policies and climate damages, at the level of a nation state in the Global North. We illustrate how they are necessary by six relevant country cases of populist opposition to or rollback of mitigation policies (Box 1) and two country cases of populist reactions to extreme events (Box 2)

To be clear, any successful climate policy reform has to substantially address grievances and compensate losers. Indeed, several instances of introducing stricter mitigation policy were unsuccessful and fuelled populist demand because they were poorly designed. The following discussion is written from the perspective of advancing climate policy in the face of anti-climate right-wing populism in an equitable and democratically legitimate way. In other words, we make recommendations for robust policy-design with right-wing populism as a constraint of policy implementation, noting that while the option of contesting any climate policy in public is essential for functioning democracies, polarisation and anti-climate ideologies are unhelpful for achieving net-zero goals.

Box 1: Selected country cases of populist opposition to or rollback of mitigation policies

Denmark's 2024 agricultural climate agreement introduced the world's first national tax on agricultural GHG emissions, applying from 2030 to livestock emissions, while also linking the reform to nitrogen reduction, peatland restoration and afforestation (Fesenfeld et al., 2026; Skagen, 2026). The affected groups are farmers, livestock producers and rural communities as the policy regulates methane from cows, sheep and pigs, an issue on which farmer resistance had defeated similar plans earlier. Populist parties tried to frame the reform as imposing an undue burden on Danish people: the Dansk Folkeparti labelled the reform as ideological, focusing on the ensuing rise in food prices, while the Danmarksdemokraterne similarly framed the tax as a rural burden, arguing that it would especially hit areas outside the big cities. Yet this framing remained contained because the reform was negotiated through the Green Tripartite agreement with agricultural and environmental organisations, with some support schemes phased in earlier than the start date for the tax. (Skagen, 2026).

In **France,** the 2022 political manifesto of the populist party 'Rassemblement National' (RN), exemplifies the description of climate action through elite-people and national-global populist dichotomies (Le Monde, 2022). The manifesto frames climate action as a punishment for French citizens, who are deemed irresponsible for climate change. The RN mixes behavioural restriction arguments (policies are restricting freedoms, including 'taking a hot bath') with place-based, income and symbolic impacts, going as far as qualifying current climate action as "climate terrorism". The RN uses the lack of popular support for top-down climate policies to fuel anti-global-elite sentiment (Le Monde, 2023).

In **Germany,** the 2023 Building Energy Act required newly installed heating systems to use at least 65 percent renewable energy, which directly affected homeowners, landlords, tenants, installers and households still dependent on gas or oil heating (Bundesregierung, nd). The German populist party "Alternative für Deutschland" (AfD) turned this into a combined economic and anti-paternalist campaign: it claimed that oil and gas heating would be pushed out by force, warned of high conversion costs, and framed the law as state overreach into the private home (Haas et al., 2025). Kistinger et al. (2025) show that households who were economically most hit by the act were more likely to vote for the AfD. At the same time, the behavioural-restriction frame was especially powerful because it translated technical heating standards into a conflict over freedom and elite intrusion (Haas et al., 2025). The government reacted by softening and sequencing the reform; nevertheless, the AfD has continued to use the issue electorally by demanding complete repeal, presenting itself as the only party willing to abolish the Building Energy Act, and attacking more moderate revisions as insufficient.

In the **Netherlands**, a 2019 ruling of the Dutch Council of State invalidated the existing nitrogen-permit system because it failed to protect the EU nature conservation areas – Natura 2000. This sudden judicial constraint made political action unavoidable: the government moved towards drastic nitrogen reductions, including buyouts and closures of

livestock farms (Tullis, 2023) that would also reduce GHG emissions. Farmers interpreted this abrupt shift as a betrayal, arguing that rural producers were being sacrificed by distant urban and technocratic elites (Gueye, 2025). The populist BoerBurgerBeweging (BBB) translated this grievance into a populist people–elite frame, presenting itself as "the voice of farmers and citizens" (Documentatiecentrum Nederlandse Politieke Partijen, 2026). During the protests, BBB politicians amplified farmers' slogans and framed ministers and EU actors as detached from rural life. This strategy institutionalised the backlash electorally: in the 2023 provincial elections, BBB became the largest party in all the Dutch regions.

In the **United States**, the Inflation Reduction Act (IRA) implemented in 2022 faced strong opposition from congressional Republicans. They portrayed the Biden administration's climate policy as both elite corruption and an affordability problem. Moreover, Republicans presented the IRA as redistribution from ordinary households to privileged actors and elites (House Ways and Means Committee, 2023). Once in government from 2024, the second Trump administration justified their rollback of mitigation policies as ending wasteful elite projects and restoring affordable energy through the executive order "Unleashing American Energy" which paused IRA disbursements (White House, 2025a,b). In statements on the Greenhouse Gas Reduction Fund, the House Committee on Oversight and Government Reform claimed that the Biden administration had used the fund and directed awards to Democratic allies, thus leaving taxpayer money vulnerable to "waste, fraud and abuse" (House Committee on Oversight and Government Reform, 2025).

In the **United Kingdom**, Reform UK's 2025 local-election campaign politicised net-zero measures less as climate policy and more as a cost-of-living, industrial and sovereignty issue. Nevertheless, it also framed climate policy as a source of higher energy costs, industrial decline, and rural disruption, promising to scrap net zero and related subsidies while opposing restrictions on petrol and diesel cars and criticising the expansion of renewable energy infrastructure on farmland (De Quay and Sethi, 2026).

5.1 A decision guide for climate policy design

For making mitigation policy resilient to populist mobilisation, instrument design should address each channel discussed above: income effects, changes in the physical or social environment, behavioural restrictions and symbolic motives. Most mitigation policies affect several of these channels, while some are particularly felt on a single impact. Figure 3 presents a decision guide for political feasibility of mitigation policy from a populism-preventing perspective, drawing on the two previous sections. Policymakers should take into account three steps.

First, identifying which channels are affected is crucial. As the German heating law illustrates, targeting the wrong channel can be costly. It activated income effects and behavioural restrictions. It turned out that compensation cannot solve a problem rooted in restricted autonomy. Household subsidies did little to reduce the backlash that was pre-

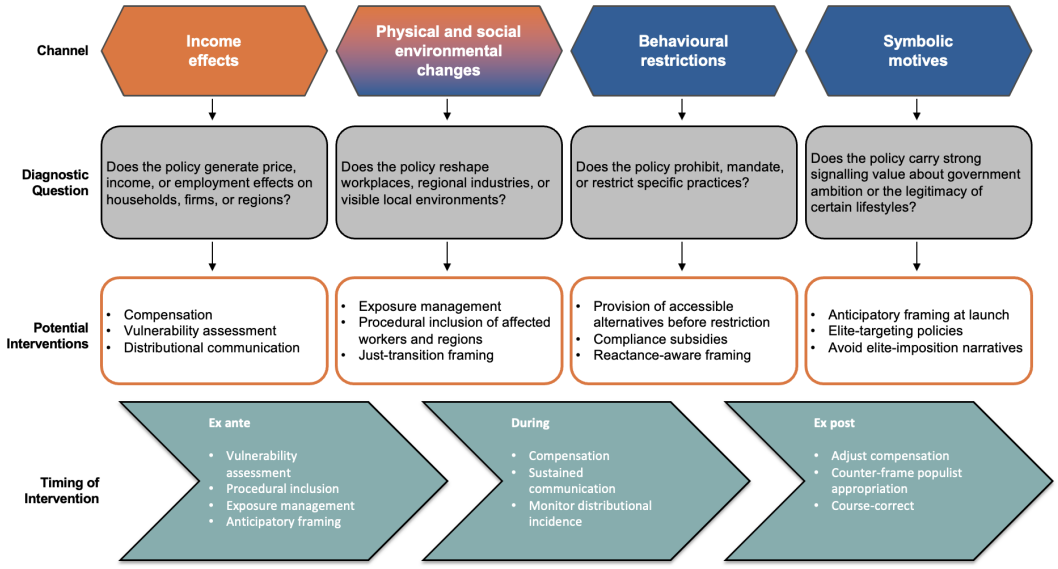


Figure 3: Decision guide for political feasibility of mitigation policy from a populism-preventing perspective. Channels follow Section 3; multiple channels may be activated simultaneously.

dominantly caused by the behavioural-restriction channel (Haas et al., 2025). The contrast between the examples of Denmark and the Netherlands presented in Box 1, also highlights this point. Both interventions targeted a regionally concentrated agricultural sector and had high symbolic salience. Nonetheless, only the Netherlands experienced populist backlash. This different outcome can be explained by diagnosis and timing: Denmark addressed the physical and symbolic channels before the implementation of the policy, through the Green Tripartite negotiation, delayed implementation, deductions and revenue recycling. The Dutch policy process, however, lacked a vulnerability assessment, procedural inclusion or anticipatory framing of the policy, which fuelled the narrative of rural sacrifice for distant elites (Box 1).

Second, once the potential impacts of a given policy are identified, policy design should sequentially address the channels, accounting for how remaining impacts are changed. For income effects, this points to compensation, revenue recycling, and just-transition packages that visibly address losses (Klenert et al., 2018), but also to procedural inclusion of affected groups, especially in low-income and carbon-intensive communities (Bolet et al., 2024). For physical and social changes, geographically explicit ex-ante assessments can help identify vulnerable regions, occupations, and communities, while local inclusion is particularly important for infrastructure projects (Bessette et al., 2024; Roddis et al., 2020). For behavioural restrictions, policy design should make salient and attractive alternatives available, such as public transport or heat pumps (Funke et al., 2024), while communication needs to address the psychological reactions that such restrictions can trigger as well as the communication strategies that populist parties might use to politicise the issue (Remme et al., 2022; Haas et al., 2025). Finally, instruments with symbolic motives require framing that avoids stigmatising particular lifestyles and makes clear that the climate effort is broadly shared, including by elites (Tallent et al., 2026). This is especially relevant where populist actors frame climate policy as an elite project that burdens ordinary or low-income households (Gettins and Meister, 2025).

Third, a cross-cutting dimension of policy design is the point in the policy process at which the impacts of climate policies are addressed. *Ex ante* (before implementation), policymakers can use vulnerability assessments (Gaikwad et al., 2022) and policy design such as sequencing measures (Meckling et al., 2017; Pahle et al., 2018) to reduce exposure to costs and restrictions, while also ensuring that viable alternatives for citizens are available to minimise behavioural restrictions. During implementation, or when the policy enters into force, the focus shifts to compensation, revenue recycling (Klenert et al., 2018), accompanying media framing, and monitoring the distributional impacts of the policy. *Ex post* (after implementation), policymakers can adjust compensation schemes, respond to and reframe populist narratives, and revise the policy where unintended consequences become visible.

5.2 Policy implications for addressing salient damages

Policymakers wishing to reduce the impact of extreme events on populism should make sure that their crisis strategy, both in terms of compensation and communication is well prepared. In particular, adaptation measures (ex ante) are often not rewarded – even if they are crucially needed to moderate the damages of such shocks. Therefore, relief payments have to be quick and visible (Bosco et al., 2023; Eriksson, 2016) and communication has to be clear and counteract populist blame (Hameleers et al., 2018), including in the media.

In designing response strategies, it is crucial to understand that crisis management and economic relief matter in two distinct ways for populist parties. On the one hand, when in opposition, populist parties can blame the incumbent government, framing it as a distant elite that abandons 'the people'. On the other hand, when in government themselves, populist parties can use crisis response to claim competence and benefit from being seen as effective crisis managers. Box 2 shows examples of this dichotomy through the case of Italy, with populists in the government, and Spain, with populists in the opposition.

Box 2: Selected country cases of populist reaction to extreme events

In **Italy,** the 2023 Emilia-Romagna floods killed at least fifteen people, displaced tens of thousands and destroyed homes, farms, firms and infrastructure. Since Fratelli d'Italia (FdI) and Lega were in national government, their populist strategy was not anti-government blame, but a competence framing: Prime minister Meloni appointed a reconstruction commissioner at the national, not regional level, turning recovery into a struggle over who could be trusted to deliver (Bonnel, 2023). FdI blamed the regional president and centre-left parties for polemics and past failures, while presenting the Meloni government as the actor of rapid action and targeted support. Public emphasis on economic relief and competent crisis management therefore allowed the government to retain a populist people-versus-establishment posture while claiming state capacity rather than merely denouncing state failure.

In Spain, floods in October 2024 devastated Valencia and neighbouring areas, killing more than 230 people and damaging homes, schools, transport networks and businesses. The Spanish government responded with emergency deployments and large aid packages for households, firms and municipalities (La Moncloa, 2024). The populist party VOX politicised the disaster by shifting attention from climate risk to state abandonment: it attacked prime minister Sánchez for not mobilising all state resources, demanded hydraulic infrastructure instead of dam removals caused by 'climate fanaticism' and called the aid decree insufficient. In VOX's frame, citizens were not victims of climate change but of elite betrayal and in their blaming strategy they focused on the economic costs citizens had to face: the government would 'ignore the victims' once they ceased to serve its interests (El Mundo, 2024a,b).

6 Conclusion

We have argued that the rise of populist parties in Global North countries changes the politics of climate policy implementation. While populist parties have gained support for other reasons, climate policy has more recently emerged as an additional issue from which populist actors can benefit. Right-wing populists are often the main beneficiaries of green backlash because they can translate transition losses into broader narratives of abandonment and conflict between ordinary citizens and cosmopolitan elites.

The political feasibility of implementing climate policies that work for citizens therefore is no longer merely a question of public acceptability. The reason is that populist demand could persist beyond the immediate costs of climate policy or that of climate damages that generate it. To make the transition to net-zero happen politically, not increasing climate populism may therefore well be the most important design criterion given recent rollback of mitigation policies by populist actors.

Three broader implications for future research follow. First, under which conditions climate change and its mitigation become incorporated into populist agendas remains an open question. Beyond the material costs climate policies impose, we have shown that their interactions with perceived restrictions of autonomy and symbolic interpretations matter and vary across countries.

Second, a further question is whether people who turn to populist parties also change their political views in the long run.[12] Once populists provide a platform for citizens' fears or values affected by climate policies, do voters support them only temporarily and for clear economic reasons, or do populist parties also reshape their political attitudes? Konc et al. (2026) present evidence consistent with the presumption that individuals who start supporting the AfD for reasons unrelated to climate policies tend to become significantly more opposed to redistributive and climate policies in the medium-term. Such an effect could be understood as populist hysteresis: a short-term policy shock may have lasting political consequences if it changes voters' attitudes or perceptions in ways that persist even after the initial material impact has weakened. Further research could thus examine if such effects can be found in other political contexts.

Third, a better theoretical and empirical understanding of how populists use natural climate shocks to their advantage is needed. As we have shown, populist parties may derive political benefits from extreme events, even when they deny climate mitigation necessary. Future research on the political consequences of natural climate shocks should examine more systematically the conditions under which such events translate into populist demand, both when populists in opposition blame governments for insufficient disaster relief and when populists in office use their position to shape disaster recovery in politically advantageous ways.

Finally, our analysis has implications for our own position as academics in the policy process. Academic research on climate policy may have inadvertently reinforced the 'anti-elite' narrative of climate action, by helping build political consensus and moving climate politics out of mainstream partisan debate in many Western countries, while partly disregarding public concerns about costs or behavioural restrictions. Analysis of climate policies through the lens of economic efficiency should be complemented by a more systematic evaluation of symbolic and behavioural effects, and alternatives to monolithic climate policies centred on emission prices and redistribution should be debated. When citizens reject costly climate policies for symbolic reasons or because they distrust their government, economic compensation might not yield the intended effects. In particular, amendments to 'textbook' carbon pricing should be considered (Klenert et al., 2018) when national

[12] See Knollenborg and Sommer (2023) for earlier evidence for Germany that this was historically not the case on climate attitudes.

policy design and institutional constraints are likely to turn carbon pricing into a populist attractor. For example, emissions trading is much less opposed than carbon taxes in many European countries (Funke et al., 2025). In sum, policy recommendations should favour instruments that induce the type of exposure least likely to lead to populism under current institutional settings.

References

Aasen, M. and Sælen, H. (2022). Right-wing populism and climate policies: Explaining opposition to road tolls in Norway. *Transportation Research Part D: Transport and Environment*, 105:103222.

Abou-Chadi, T. and Kayser, M. A. (2017). It's not easy being green: Why voters punish parties for environmental policies during economic downturns. *Electoral Studies*, 45:201–207.

Adger, W. N., Barnett, J., Brown, K., Marshall, N., and O'brien, K. (2013). Cultural dimensions of climate change impacts and adaptation. *Nature Climate Change*, 3(2):112–117.

Akarca, A. T. and Tansel, A. (2017). Voter reaction to government incompetence and corruption related to the 1999 earthquakes in turkey. *International Journal of Social Economics*, 44(2):222–235.

Albrecht, F. (2022). Natural hazards as political events: framing and politicisation of floods in the united kingdom. *Environmental Hazards*, 21(1):17–35.

Albrecht, G., Sartore, G.-M., Connor, L., Higginbotham, N., Freeman, S., Kelly, B., Stain, H., Tonna, A., and Pollard, G. (2007). Solastalgia: the distress caused by environmental change. *Australasian Psychiatry*, 15(sup1):S95–S98.

Algan, Y., Guriev, S., Papaioannou, E., and Passari, E. (2017). The european trust crisis and the rise of populism. *Brookings Papers on Economic Activity*, 2017:309–400.

Arzheimer, K., Berning, C. C., de Lange, S. L., Dutozia, J., Evans, J., Gould, M., Harteveld, E., Hood, N., Ivaldi, G., Norman, P. D., van der Brug, W., and van der Meer, T. (2024). How local context affects populist radical right support: A cross-national investigation into mediated and moderated relationships. *British Journal of Political Science*, 54:1133–1158.

Atkins, E. (2026). London's ultra-low emission zone, infrastructural populism and the 'war on drivers' in the uk. *Environment and Planning C: Politics and Space*, page 23996544261440814.

Autor, D., Dorn, D., Hanson, G., and Majlesi, K. (2020). Importing political polarization? the electoral consequences of rising trade exposure. *American Economic Review*, 110(10):3139–83.

Baccini, L. and Leemann, L. (2021). Do natural disasters help the environment? how voters respond and what that means. *Political Science Research and Methods*, 9(3):468–484.

Bache, I., Reardon, L., Bartle, I., Marsden, G., and Flinders, M. (2015). Symbolic metapolicy: (not) tackling climate change in the transport sector. *Political Studies*, 63:830–851.

Bayulgen, O., Atkinson-Palombo, C., Buchanan, M., and Scruggs, L. (2021). Tilting at windmills? electoral repercussions of wind turbine projects in minnesota. *Energy Policy*, 159:112636.

Bechtel, M. M. and Hainmueller, J. (2011). How lasting is voter gratitude? an analysis of the short- and long-term electoral returns to beneficial policy. *American Journal of Political Science*, 55(4):852–868.

Beiser-McGrath, L. F. and Busemeyer, M. R. (2024). Carbon inequality and support for carbon taxation. *European Journal of Political Research*, 63(4):1286–1307.

Bessette, D. L., Hoen, B., Rand, J., Hoesch, K., White, J., Mills, S. B., and Nilson, R. (2024). Good fences make good neighbors: stakeholder perspectives on the local benefits and burdens of large-scale solar energy development in the united states. *Energy Research & Social Science*, 108:103375.

Biesbroek, R. and Lesnikowski, A. (2023). Unpacking symbolic policy-making for the first global stocktake under the paris agreement. *npj Climate Action*, 2(50).

Blankenship, B., Kennedy, R., Urpelainen, J., and Yang, J. (2021). Barking up the wrong tree: How political alignment shapes electoral backlash from natural disasters. *Comparative Political Studies*, 54(7):1163–1196.

Bolet, D., Green, F., and González-Eguino, M. (2024). How to get coal country to vote for climate policy: The effect of a "just transition agreement" on spanish election results. *American Political Science Review*, 118:1344–1359.

Bonnel, O. (2023). Reconstruction of Italy's Emilia-Romagna region fuels political battle. Le Monde. accessed 13-05-26.

Bosco, L., Cerqua, A., Ferrante, C., and Letta, M. (2023). Electoral earthquake: Local shocks and authoritarian voting. *European Economic Review*, 158:104544.

Bosetti, V., Colantone, I., De Vries, C. E., and Musto, G. (2025). Green backlash and right-wing populism. *Nature Climate Change*, 15(8):822–828.

Botzen, W. W., Deschenes, O., and Sanders, M. (2019). The economic impacts of natural disasters: A review of models and empirical studies. *Review of Environmental Economics and Policy*, 13(2):167–188.

Boussaguet, L. and Faucher, F. (2025). Symbolic policy. *Cambridge Books*.

Brännlund, A. and Peterson, L. (2024). Power politics: How electric grievances shape election outcomes. *Ecological Economics*, 217:108077.

Bundesregierung (n.d.). Für mehr klimafreundliche Heizungen. accessed 13-05-26.

Carattini, S., Carvalho, M., and Fankhauser, S. (2018). Overcoming public resistance to carbon taxes. *Wiley Interdisciplinary Reviews: Climate Change*, 9(5):e531.

Cerkez, N. (2025). Extreme weather events and the support for democracy. CSAE Working Paper WPS/2025-03, Centre for the Study of African Economies, University of Oxford.

Colantone, I., Di Lonardo, L., Margalit, Y., and Percoco, M. (2024). The political consequences of green policies: Evidence from Italy. *American Political Science Review*, 118(1):108–126.

Cole, S., Healy, A., and Werker, E. (2012). Do voters demand responsive governments? evidence from indian disaster relief. *Journal of Development Economics*, 97(2):167–181.

Cooperman, A. (2022). (un) natural disasters: Electoral cycles in disaster relief. *Comparative Political Studies*, 55(7):1158–1197.

Copland, S. (2020). Anti-politics and global climate inaction: The case of the australian carbon tax. *Critical Sociology*, 46(4–5):623–641.

Cremaschi, S., Bariletto, N., and Vries, C. E. D. (2025). Without roots: The political consequences of collective economic shocks. *American Political Science Review*, 119:1963–1982.

Cremaschi, S. and Stanig, P. (2025). Voting and climate change: How an extreme weather event increased support for a radical-right incumbent in italy. *The Journal of Politics*, 87(4):1617–1622.

Damsbo-Svendsen, S. (2024). Pro-climate voting in response to local flooding. *Political Behavior*, 47:1169–1190.

De Quay, E. and Sethi, P. (2026). The reform UK party's approach to climate change and net zero in local councils. Technical Report 10.21953/researchonline.lse.ac.uk.00137714, London, UK.

Dechezleprêtre, A., Fabre, A., Kruse, T., Planterose, B., Sanchez Chico, A., and Stantcheva, S. (2025). Fighting climate change: International attitudes toward climate policies. *American Economic Review*, 115(4):1258–1300.

Deryugina, T., Kawano, L., and Levitt, S. (2018). The economic impact of hurricane katrina on its victims: Evidence from individual tax returns. *American Economic Journal: Applied Economics*, 10(2):202–233.

Documentatiecentrum Nederlandse Politieke Partijen (2026). Boerburgerbeweging (bbb). Rijksuniversiteit Groningen.

Douenne, T. and Fabre, A. (2022). Yellow vests, pessimistic beliefs, and carbon tax aversion. *American Economic Journal: Economic Policy*, 14(1):81–110.

Drews, S. and Konc, T. (2026). Perceptions of carbon inequality and attitudes to policy responses: Evidence from spain. *Energy Research & Social Science*, 137:104756.

Driscoll, D. (2023). Populism and carbon tax justice: The yellow vest movement in france. *Social Problems*, 70(1):143–163.

Edenhofer, J., Hirt, M., and Genovese, F. (2027). The domestic political economy of net zero. *Oxford Review of Econmic Policy*, page forthcoming.

Egli, F., Schmid, N., and Schmidt, T. S. (2022). Backlash to fossil fuel phase-outs: The case of coal mining in us presidential elections. *Environmental Research Letters*, 17(9):094002.

El Mundo (2024a). Abascal acusa a sánchez de tener «acuartelado» al ejército por «bastardos intereses políticos». `https://www.elmundo.es/espana/2024/11/01/6724caa121efa0b8488b4574.html`.

El Mundo (2024b). Vox se lanza a la agitación social contra el «aquelarre climático que mata personas» para evitar el desgaste de la dana y tapar a su derecha. `https://www.elmundo.es/espana/2024/11/19/673b68e9fc6c8359428b4570.html`.

Eriksson, L. M. (2016). Winds of change: Voter blame and storm gudrun in the 2006 swedish parliamentary election. *Electoral Studies*, 41:188–198.

Ewald, J., Bourdenet, J., Mattauch, L., and Sterner, T. (2026). Using revenue to reduce resistance to carbon pricing: Evidence from europe. mimeo.

Ewald, J., Sterner, T., and Sterner, E. (2022). Understanding the resistance to carbon taxes: Drivers and barriers among the general public and fuel-tax protesters. *Resource and Energy Economics*, 70:101331.

Fabre, A., Douenne, T., and Mattauch, L. (2025). Majority support for global redistributive and climate policies. *Nature Human Behaviour*, 9:1583–1594.

Fanghella, V., Schleich, J., and Sebi, C. (2025). Populism and support of onshore wind energy: Explaining different perspectives from the left and right. *Ecological Economics*, page 108714.

Fankhauser, S., Smith, S. M., Allen, M., Axelsson, K., Hale, T., Hepburn, C., Kendall, J. M., Khosla, R., Lezaun, J., Mitchell-Larson, E., et al. (2022). The meaning of net zero and how to get it right. *Nature Climate Change*, 12(1):15–21.

Ferwerda, J., Gest, J., and Reny, T. (2024). Nostalgic deprivation and populism: Evidence from 19 european countries. *European Journal of Political Research*.

Fesenfeld, L. et al. (2026). The political economy of transforming livestock systems. mimeo.

Fukumoto, K. and Kikuta, K. (2024). After a storm come votes: Identifying the effects of disaster relief on electoral outcomes. *Political Behavior*, 46(4):2357–2377.

Funke, F., Konc, T., Mattauch, L., Pahle, M., Schwarz, A., and Sommer, S. (2025). Prices vs. quantities from a citizen's perspective. SSRN Working Paper No. 5147710.

Funke, F., Mattauch, L., Douenne, T., Fabre, A., and Stiglitz, J. E. (2024). Supporting carbon pricing when interest rates are higher. *Nature Climate Change*, 14(7):665–667.

Furceri, D., Ganslmeier, M., and Ostry, J. (2023). Are climate change policies politically costly? *Energy Policy*, 178:113575.

Gaikwad, N., Genovese, F., and Tingley, D. (2022). Creating climate coalitions: mass preferences for compensating vulnerability in the world's two largest democracies. *American Political Science Review*, 116(4):1165–1183.

Garside, S. and Zhai, H. (2022). If not now, when? climate disaster and the green vote following the 2021 Germany floods. *Research & Politics*, 9(4):1–8.

Gasper, J. T. and Reeves, A. (2011). Make it rain? retrospection and the attentive electorate in the context of natural disasters. *American Journal of Political Science*, 55(2):340–355.

Gazmararian, A. F. and Krashinsky, L. (2023). Driving labor apart: Climate policy backlash in the american auto corridor. SSRN Working Paper No. 4633502.

Gettins, M. and Meister, L. (2025). Who pays for climate policy? distributional narratives and populist backlash. Technical report, DIW Discussion Paper No 2139.

Giannoni, M. (2025). The politics of 'place': community and individual economic perceptions in anti-system and right populist views in france. *European Politics and Society*, 26:1201–1219.

Gidron, N. and Hall, P. (2017). The politics of social status: economic and cultural roots of the populist right. *The British Journal of Sociology*, 68:S57–S84.

Graff Zivin, J. and Neidell, M. (2014). Temperature and the allocation of time: Implications for climate change. *Journal of Labor Economics*, 32(1):1–26.

Gueye, K. (2025). How European populists turn farmers' anger into political power. European Center for Populism Studies.

Guiso, L., Herrera, H., Morelli, M., and Sonno, T. (2017). Demand and supply of populism. IGIER Working Paper No. 610.

Guiso, L., Herrera, H., Morelli, M., and Sonno, T. (2019). Global crises and populism: the role of Eurozone institutions. *Economic Policy*, 34:95–139.

Guiso, L., Herrera, H., Morelli, M., and Sonno, T. (2024). Economic insecurity and the demand for populism in Europe. *Economica*, 91(362):588–620.

Guo, W., Wenz, L., and Auffhammer, M. (2024). The visual effect of wind turbines on property values is small and diminishing in space and time. *Proceedings of the National Academy of Sciences*, 121(13):e2309372121.

Guriev, S. and Papaioannou, E. (2022). The political economy of populism. *Journal of Economic Literature*, 60(3):753–832.

Haas, T., Sander, H., Fünfgeld, A., and Mey, F. (2025). Climate obstruction at work: Right-wing populism and the German heating law. *Energy Research & Social Science*, 123:104034.

Hameleers, M., Bos, L., and De Vreese, C. (2018). Framing blame: Toward a better understanding of the effects of populist communication on populist party preferences. *Journal of Elections, Public Opinion and Parties*, 28(3):380–398.

Hazlett, C. and Mildenberger, M. (2020). Wildfire exposure increases pro-environment voting within democratic but not republican areas. *American Political Science Review*, 114(4):1359–1365.

Healy, A. and Malhotra, N. (2009). Myopic voters and natural disaster policy. *American Political Science Review*, 103(3):387–406.

Heddesheimer, V., Hilbig, H., and Voeten, E. (2025). The green transition and political polarization along occupational lines. *American Political Science Review*, pages 1–23.

Heersink, B., Jenkins, J. A., Olson, M. P., and Peterson, B. D. (2020). Natural disasters, 'partisan retrospection,' and U.S. presidential elections. *Political Behavior*, 42(4):1343–1368.

Hilbig, H. and Riaz, S. (2024). Natural disasters and green party support. *The Journal of Politics*, 86(1).

Hoffmann, R., Muttarak, R., Peisker, J., and Stanig, P. (2022). Climate change experiences raise environmental concerns and promote green voting. *Nature Climate Change*, 12:148–155.

Holub, F. and Schündeln, M. (2023). Pro-environmental voting when climate change is made salient: Evidence from high-resolution flooding data. *PLOS Climate*, 2(8):e0000219.

House Committee on Oversight and Government Reform (2025). Oversight committee releases report exposing biden's green new deal scam benefitting democratic allies. U.S. House Committee on Oversight and Government Reform. accessed 28-07-26.

House Ways and Means Committee (2023). Chairman Smith: 'Inflation Reduction Act' is welfare for the wealthy, well-connected. U.S. House Committee on Ways and Means.

Huber, R. A., Fesenfeld, L., and Bernauer, T. (2020). Political populism, responsiveness, and public support for climate mitigation. *Climate Policy*, 20:373–386.

Im, Z. J. (2024). Paying the piper for the green transition? perceptions of unfairness from regional employment declines in carbon-polluting industrial sectors. *Journal of European Public Policy*, 31(6):1620–1646.

Inglehart, R. and Norris, P. (2016). Trump, Brexit, and the rise of populism: Economic have-nots and cultural backlash. *HKS Working Paper*, (RWP16-026).

Jacobs, A. M. and Kayser, M. A. (2025). Downward mobility and far-right party support: Broad evidence. *Comparative Political Studies*, 59(8):1678–1714.

Kistinger, D., Kögel, N., Koch, N., and Kalkuhl, M. (2025). Heated debates on heating: Investigating the electoral impact of climate policy. IZA Discussion Paper 17596.

Klenert, D., Mattauch, L., Combet, E., Edenhofer, O., Hepburn, C., Rafaty, R., and Stern, N. (2018). Making carbon pricing work for citizens. *Nature Climate Change*, 8(8):669–677.

Knollenborg, L. and Sommer, S. (2023). Diverging beliefs on climate change and climate policy: The role of political orientation. *Environmental and Resource Economics*, 84(4):1031–1049.

Konc, T., Drews, S., Savin, I., and Van Den Bergh, J. C. (2022). Co-dynamics of climate policy stringency and public support. *Global Environmental Change*, 74:102528.

Konc, T., Steckel, J., Edenhofer, J., Ewald, J., and Sterner, T. (2026). The political consequences of energy price shocks - evidence from Germany. CESifo Working Paper No. 12887.

Konradt, M. and Mangiante, G. (2026). The unequal costs of carbon pricing: Economic and political effects across european regions. *The Economic Journal*, 136:1683–1703.

Kramer, N., Konc, T., and Steckel, J. C. (2026). Exposure to climate policy costs and public backlash: Evidence from Germany. Apsa preprints.

Kronborg, A., Hedegaard, F., Klindt, I., and Vandeweerdt, C. (2024). Do green parties in government benefit from natural catastrophes? How wildfires are linked to voting. *Electoral Studies*, 88:102749.

Kurer, T. (2020). The declining middle: Occupational change, social status, and the populist right. *Comparative Political Studies*, 53:1798–1835.

La Moncloa (2024). Government aid to alleviate the effects of the DANA. accessed 28-07-26.

Lachapelle, E. and Kiss, S. J. (2019). Opposition to carbon pricing and right-wing populism: Ontario's 2018 general election. *Environmental Politics*, 28(5):970–976.

Laybourn, L., Evans, J., and Dyke, J. (2023). Derailment risk: A systems analysis that identifies risks which could derail the sustainability transition. *Earth System Dynamics*, 14(6):1171–1182.

Le Monde (2022). Marine Le Pen oppose son écologie nationale à l'écologie punitive d'Emmanuel Macron. accessed 2608-25.

Le Monde (2023). L'écologie, ce nouveau clivage politique que le rassemblement national compte exploiter. accessed: 26-08-25.

Liebe, U., Bartczak, A., and Meyerhoff, J. (2017). A turbine is not only a turbine: The role of social context and fairness characteristics for the local acceptance of wind power. *Energy policy*, 107:300–308.

Lockwood, M. (2018). Right-wing populism and the climate change agenda: exploring the linkages. *Environmental Politics*, 27(4):712–732.

Loschke, C., Braungardt, S., Keimeyer, F., and Rosenow, J. (2026). Heating up the headlines: How tabloid framing reshaped Germany's buildings energy act. *Energy Research & Social Science*, 138:104832.

Maestre-Andrés, S., Drews, S., and Van Den Bergh, J. (2019). Perceived fairness and public acceptability of carbon pricing: a review of the literature. *Climate Policy*, 19(9):1186–1204.

Margalit, Y. (2019). Economic insecurity and the causes of populism, reconsidered. *Journal of Economic Perspectives*, 33:152–170.

Margalit, Y., Raviv, S., and Solodoch, O. (2025). The cultural origins of populism. *The Journal of Politics*, 87(2):393–410.

Markowitz, E. M. and Shariff, A. F. (2012). Climate change and moral judgement. *Nature Climate Change*, 2(4):243–247.

Masiero, G. and Santarossa, M. (2021). Natural disasters and electoral outcomes. *European Journal of Political Economy*, 67:101983.

McAllister, J. H. and bin Oslan, A. (2021). Issue ownership and salience shocks: The electoral impact of australian bushfires. *Electoral Studies*, 74:102389.

McHugh, L. H., Lemos, M. C., and Morrison, T. H. (2021). Risk? Crisis? Emergency? Implications of the new climate emergency framing for governance and policy. *WIREs Climate Change*, 12(6):e736.

McNeil, A. and Mitsch, F. (2025). The political effects of London's ultra low emission zone. *The British Journal of Politics and International Relations*, 27(4):1585–1599.

Meckling, J., Sterner, T., and Wagner, G. (2017). Policy sequencing toward decarbonization. *Nature Energy*, 2(12):918–922.

Meijers, M., van Drunen, Y., and Jacobs, K. (2023). It's a hoax! The mediating factors of populist climate policy opposition. *West European Politics*, 46(6):1288–1311.

Millward-Hopkins, J. (2022). Why the impacts of climate change may make us less likely to reduce emissions. *Global Sustainability*, 5:e21.

Mohammadzadeh Valencia, F., Mohren, C., Ramakrishnan, A., Merchert, M., Minx, J. C., and Steckel, J. C. (2024). Public support for carbon pricing policies and revenue recycling options: a systematic review and meta-analysis of the survey literature. *npj Climate Action*, 3(1):74.

Mudde, C. (2004). The populist zeitgeist. *Government and Opposition*, 39:541–563.

Mudde, C. and Rovira Kaltwasser, C. (2017). *Populism: A Very Short Introduction*. Oxford University Press.

Müller, J.-W. (2016). *What Is Populism?* University of Pennsylvania Press, Philadelphia.

Nisbett, N., Spaiser, V., Leston-Bandeira, C., and Valdenegro, D. (2025). Climate action or delay: the dynamics of competing narratives in the UK political sphere and the influence of climate protest. *Climate Policy*, 25(4):513–526.

Norris, P. and Inglehart, R. (2019). *Cultural Backlash: Trump, Brexit, and Authoritarian Populism*. Cambridge University Press, Cambridge.

Oesch, D. (2008). Explaining workers' support for right-wing populist parties in western europe: Evidence from Austria, Belgium, France, Norway, and Switzerland. *International Political Science Review*, 29:349–373.

Otteni, C. and Weisskircher, M. (2022). Global warming and polarization: Wind turbines and the electoral success of the greens and the populist radical right. *European Journal of Political Research*, 61(4):1102–1122.

Pahle, M., Burtraw, D., Flachsland, C., Kelsey, N., Biber, E., Meckling, J., Edenhofer, O., and Zysman, J. (2018). Sequencing to ratchet up climate policy stringency. *Nature Climate Change*, 8(10):861–867.

Patterson, J., Anisimova, K., Logg-Scarvell, J., and Kaiser, C. (2025). Reactions to policy action: socio-political conditions of backlash to climate change policy. *Policy Sciences*, 58(2):287–320.

Patterson, J. J. (2023). Backlash to climate policy. *Global Environmental Politics*, 23(1):68–90.

Raymond, L. (2020). Carbon pricing and economic populism: the case of Ontario. *Climate Policy*, 20(9):1127–1140.

Remme, D., Sareen, S., and Haarstad, H. (2022). Who benefits from sustainable mobility transitions? social inclusion, populist resistance and elite capture in Bergen, Norway. *Journal of Transport Geography*, 105:103475.

Rhodes-Purdy, M., Navarre, R., and Utych, S. (2021). Populist psychology: Economics, culture, and emotions. *The Journal of Politics*, 83:1559–1572.

Roddis, P., Roelich, K., Tran, K., Carver, S., Dallimer, M., and Ziv, G. (2020). What shapes community acceptance of large-scale solar farms? A case study of the UK's first 'nationally significant' solar farm. *Solar Energy*, 209:235–244.

Rodríguez-Pose, A. (2018). The revenge of the places that don't matter (and what to do about it). *Cambridge Journal of Regions, Economy and Society*, 11(1):189–209.

Rodrik, D. (2017). Populism and the economics of globalization. NBER Working Paper No. 23559.

Schmelz, K. and Bowles, S. (2025). An empirically based dynamic approach to sustainable climate policy design. *Nature Sustainability*, 9:212–221.

Singh, B. K., Delgado-Baquerizo, M., Egidi, E., Guirado, E., Leach, J. E., Liu, H., and Trivedi, P. (2023). Climate change impacts on plant pathogens, food security and paths forward. *Nature Reviews Microbiology*, 21(10):640–656.

Skagen, K. (2026). Climate policy for agriculture–explaining why Denmark introduced carbon pricing on agriculture. *Climate Policy*, pages 1–14.

Smith, S. et al. (2017). Just transition: A report for the OECD. accessed 28-07-26.

Spence, A., Poortinga, W., Butler, C., and Pidgeon, N. F. (2011). Perceptions of climate change and willingness to save energy related to flood experience. *Nature Climate Change*, 1(1):46–49.

Spence, A., Poortinga, W., and Pidgeon, N. (2012). The psychological distance of climate change. *Risk Analysis*, 32(6):957–972.

Stokes, L. C. (2016). Electoral backlash against climate policy: A natural experiment on retrospective voting and local resistance to public policy. *American Journal of Political Science*, 60(4):958–974.

Stutzmann, S. (2025). Asymmetric backlash against structural economic change: The electoral consequences of the coal phase-out in Germany. *European Journal of Political Research*, 64(4):1643–1667.

Tallent, T. (2026). When place shapes attitudes: explaining rural discontent with climate policies. *Journal of European Public Policy*, 33(2):1–33.

Tallent, T., Jan, M., and Sattelmayer, L. (2026). More than symbols: The effect of symbolic policies on climate policy support. *American Political Science Review*, pages 1–21.

Tatham, M. and Peters, Y. (2023). Fueling opposition? Yellow vests, urban elites, and fuel taxation. *Journal of European Public Policy*, 30(3):574–598.

Torney, D. (2019). Climate laws in small European states: symbolic legislation and limits of diffusion in ireland and finland. *Environmental Politics*.

Tullis, P. (2023). Nitrogen wars: the Dutch farmers' revolt that turned a nation upside-down. The Guardian. accessed: 28-07-26.

Visconti, G. (2022). After the flood: Disasters, ideological voting and electoral choices in Chile. *Political Behavior*, 44:1985–2004.

Voeten, E. (2025). The energy transition and support for the radical right: Evidence from the Netherlands. *Comparative Political Studies*, 58(2):394–428.

Wanvik, T. I. and Haarstad, H. (2021). Populism, instability, and rupture in sustainability transformations. *Annals of the American Association of Geographers*, 111(7):2096–2111.

Wappenhans, T., Valentim, A., Klüver, H., and Stoetzer, L. F. (2024). Extreme weather events do not increase political parties' environmental attention. *Nature Climate Change*, 14(7):696–699.

Ward, G., Schwartz, H. A., Giorgi, S., Menges, J. I., and Matz, S. (2024). The role of negative affect in shaping populist support: Converging field evidence from across the globe. *The American Psychologist*, 80:323–344.

Weber, E. U. (2006). Experience-based and description-based perceptions of long-term risk: Why global warming does not scare us (yet). *Climatic Change*, 77(1-2):103–120.

Weisskircher, M. and Volk, S. (2026). The people against the sun? Ideology and strategy in far-right parties' climate obstruction of solar energy. *Environmental Politics*, 35(2):240–271.

White House (2025a). Ending the green new scam. Budget Fact Sheet, The White House.

White House (2025b). Executive order 14154: Unleashing american energy. The White House.

Whitmarsh, L. and Corner, A. (2017). Tools for a new climate conversation: A mixed-methods study of language for public engagement across the political spectrum. *Global Environmental Change*, 42:122–135.

Widmann, T. (2025). Do politicians appeal to discrete emotions? The effect of wind turbine construction on elite discourse. *The Journal of Politics*, 87(1):335–346.

Wyss, R. and Chiru, M. (2026). "Why didn't the sirens wail on the roofs?": political framing competition in the German parliament following the 2021 floods. *Environmental Politics*, pages 1–21.

Yazar, M. and Haarstad, H. (2023). Populist far right discursive-institutional tactics in European regional decarbonization. *Political Geography*, 105:102936.