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**Working Paper**

## Too much or not enough? The dual nature of green discontent and its geography

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JRC WORKING PAPER

# Too much or not enough? The dual nature of green discontent and its geography

JRC Working Papers on  
Territorial Modelling and Analysis

No 04/2025



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## **Abstract**

This study examines the dual nature of green discontent, which manifests as dissatisfaction with insufficient climate action and opposition to policies perceived as overly restrictive or economically disruptive. The analysis focuses on the spatial dimensions of this phenomenon, assessing how socio-economic, climatic, and institutional factors influence public attitudes toward environmental policies. The study relies on Eurobarometer survey data and voting patterns at the NUTS2 level to capture regional variations in green discontent across Europe. The results reveal clear contrasts between urban areas exposed to climate risks, rural regions dependent on carbon-intensive industries, and economically stable territories. These findings emphasize the importance of adopting place-based approaches to design climate policies that are both equitable and effective. The paper concludes with recommendations on how to integrate territorial environmental justice into climate strategies to address regional vulnerabilities and strengthen public support for ecological transition.

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## **Executive summary**

The European Union has made the green transition a core strategic priority, reinforcing ambitious policies like the European Green Deal and the Fit for 55 package. These initiatives aim to accelerate the shift toward a low-carbon economy while ensuring sustainability and economic resilience. However, as the pace and scope of these policies increase, they generate growing tensions across different segments of society. Public dissatisfaction with climate policies has become a critical factor influencing political stability, electoral outcomes, and social cohesion in Europe.

This dissatisfaction manifests in two distinct but interrelated forms, conceptualized as green discontent. Some citizens and regions believe climate action is insufficient, demanding stronger and faster interventions. Others view green policies as excessive, economically harmful, or disconnected from local realities. These divergent reactions are captured through two key dimensions.

We Are Not Doing Enough (WANE) reflects frustration with weak government action on climate change. It is most pronounced in regions facing direct climate impacts, such as coastal flooding or extreme heat, and among urban populations engaged in environmental activism or green sectors of the economy. We Are Doing Too Much (WDTM) expresses opposition to climate policies perceived as economically burdensome or socially disruptive. It is strongest in regions dependent on carbon-intensive industries such as coal, steel, or energy-intensive manufacturing, as well as in rural areas where agricultural regulations are seen as constraints on local economies.

Green discontent is deeply rooted in economic and social structures, highlighting territorial disparities. Wealthier, service-oriented urban regions tend to support ambitious climate policies and show high WANE scores, while industrial and rural areas reliant on fossil fuels often resist regulations, leading to higher WDTM scores.

Beyond economic factors, political and institutional contexts shape green discontent. Where climate policies include compensation mechanisms, job transition programs, or meaningful stakeholder engagement, resistance tends to be lower. However, when policies are perceived as imposed from above, such as carbon taxes or restrictive regulations, opposition intensifies.

Green discontent is increasingly reflected in electoral dynamics. High WANE regions tend to support green or progressive parties, while high WDTM regions show stronger backing for populist, nationalist, or climate-skeptic movements. Understanding these dynamics is essential for policymakers to balance climate ambition with political and social stability.

## **Key findings**

Green discontent is highly uneven across Europe, reflecting deep regional divides in economic structure, social attitudes, and political orientations. WANE is most prevalent in urban and coastal areas where climate change impacts are directly felt and where economic structures favor green industries and knowledge-based sectors. In contrast, WDTM is strongest in regions heavily dependent on fossil fuels, heavy industry, and traditional agriculture.

Economic factors play a critical role in shaping green discontent. Higher GDP per capita and education levels are associated with greater WANE, as wealthier, more educated populations tend to prioritize climate action. Conversely, high unemployment and economic decline correlate with stronger WDTM sentiment, particularly in regions where the green transition is perceived as a threat to livelihoods.

Voting patterns reflect these spatial disparities. Regions with high WANE scores tend to support pro-climate and progressive parties, whereas those with high WDTM scores show greater support for parties that oppose stringent climate policies or emphasize economic protectionism.

### **Policy implications**

The findings underscore the necessity of designing climate policies that are sensitive to regional disparities and social concerns. A one-size-fits-all approach to the green transition risks exacerbating socio-economic inequalities and fueling political opposition. To address WANE, policymakers should strengthen the credibility and visibility of climate action, ensuring that commitments translate into tangible outcomes. For WDTM regions, measures such as just transition programs, economic diversification strategies, and financial support for affected industries and workers are essential to mitigate resistance.

Integrating regional perspectives into climate governance and fostering participatory decision-making processes can help build greater public acceptance of green policies. By acknowledging and addressing the diverse expressions of green discontent, policymakers can create pathways for a socially sustainable transition that balances environmental objectives with economic and social resilience.



# 1. Introduction

Since the 2008 crisis, European countries have faced a wave of public discontent due to various social, economic, and cultural factors (Rodrik, 2018; Norris and Inglehart, 2019; Sandbu, 2020). One key concern among policymakers and analysts has been the rising support for anti-systemic ideas and movements, which challenge established political and social structures. This issue has also raised questions in political debate about whether the social and economic impacts of climate and ecological transition policies are contributing to rising public discontent. Media have often designated this phenomenon as “green backlash” pointing to examples such as the Yellow Vest movement<sup>2</sup> and the more recent wave of farmers’ protests across several European countries<sup>3</sup>, both of which were sparked by climate-related measures<sup>4</sup>. These events illustrate the inevitable interdependencies between socio-economic and geographical inequalities on the one hand, and sustainable transition on the other (Martin and Islar, 2020). From an academic perspective, they therefore suggest developing interpretative frameworks to better understand the inequalities-environment/climate nexus (OECD, 2021). From a policy perspective, they highlight the existence of significant trade-offs in the design of climate policies.

While this perspective has its merits, it addresses only part of the phenomenon and overlooks an equally important dimension: the discontent arising from the belief that measures to combat climate change are inadequate. Indeed, we are increasingly witnessing protest movements lamenting the perceived inaction on climate issues (Boulianne et al., 2020; Copland, 2020). This duality highlights the necessity of conceptualizing “green discontent” as a spectrum encompassing two main forms. On one side, there is discontent directed at climate and green transition policies, which are criticized for being economically and socially harmful. On the other side, there is discontent fueled by concerns over the effects of climate change, reflecting dissatisfaction with the perceived insufficiency and ineffectiveness of current climate policies.

Moreover, such an analysis cannot overlook that these forms of discontent are shaped not only by social factors (Weber, 2010; Antronico et al., 2020) but also by political dynamics (Nisbett et al., 2024). Additionally, they are deeply embedded in geographical contexts (Weckroth and Ala-Mantila, 2022), influenced by the specific territorial characteristics and the varying degrees of vulnerability to both climate change and the policies designed to address it. The emerging literature on the geography of discontent (McCann, 2020) has predominantly examined territorial disparities as a determinant factor (e.g., Dijkstra et al., 2020; Kenny and Luca, 2021; Essletzbichler et al., 2018). Recent work has suggested exploring how climate policies influence regional discontent (Rodriguez-Pose and Bartalucci, 2024). However, there remains a notable lack of empirical research on the spatial dimensions of both discontent with climate policies and discontent with inadequate climate action. While studies on public attitudes toward climate change or climate policies have generally focused on individual determinants, such as personality traits or socio-economic backgrounds

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<sup>2</sup> The Yellow Vest movement (“Gilets Jaunes”) started in France in November 2018, initially protesting a proposed fuel tax. It expanded into a broader movement against economic inequality and government measures.

<sup>3</sup> The 2024 European farmers’ protests, started in December 2023, involved farmers voicing opposition to low food prices, new environmental regulations (including a carbon tax, pesticide bans, nitrogen emission limits, and restrictions on water and land use), and trade agreements with non-EU countries like Ukraine.

<sup>4</sup> See for instance The Economist (2023) and Politico (2023).

(Marquart-Pyatt, 2008), little attention has been paid to the role of spatial inequalities in shaping these attitudes.

Existing studies often focus on national or global scales, neglecting the territorial heterogeneity that shapes how green discontent manifests and evolves. The interplay between socio-economic, cultural, and environmental factors varies considerably from region to region, influenced by disparities in exposure to climate risks, the socio-economic impacts of climate policies, and the institutional and political dynamics in specific contexts. For example, rural areas dependent on carbon-intensive industries may exhibit stronger resistance to ecological transition policies, while urban areas exposed to climate-related risks may show higher levels of frustration with political inaction. Ignoring this spatial approach risks missing essential information for designing more effective and equitable climate policies. In this respect, the work of Weckroth and Ala-Mantila (2022) is a notable exception, analyzing climate attitudes through regional lenses such as urban-rural differences and the socio-economic characteristics of European regions. However, their research focuses primarily on climate skepticism, without examining its counterpart—dissatisfaction with climate action deemed insufficient. Moreover, their approach, centered on empirical determinants, does not address the conceptualization of this green discontent or its geographical elaboration.

This paper aims to fill this gap by emphasizing the importance of a geographical perspective in understanding green discontent. The study explores how spatial inequalities and contextual factors influence both opposition to climate policies and discontent with inadequate climate action. Specifically, we seek to conceptualize and measure the two main forms of green discontent across different territories. We also aim to highlight the spatial variations of these two forms of green discontent and how they may inform regionalized policy approaches.

The theoretical assumption underlying both forms of discontent is that climate change and climate policies have significant distributional effects (Vona, 2021), including across space. In this sense, the two forms of discontent are also highly intertwined and may even overlap. This is because discontent is not a single-issue phenomenon but rather a complex of concerns that are often difficult to disentangle (Steenvoorden, 2015) and can feed off each other. Additionally, social groups and regions that are more exposed to the effects of environmental degradation and climate change are also those that are more vulnerable to the shocks induced by climate policies as shown in various studies (e.g. Weber, 2020).

The report is structured into six sections. After the introduction, Section 2 provides a conceptual framework for understanding green discontent. Section 3 explores the forms of green discontent, distinguishing between dissatisfaction with insufficient climate action and resistance to perceived policy overreach. Section 4 presents the methodology and proposes a geography of green discontent. Section 5 offers policy recommendations aimed at integrating principles of territorial environmental justice into climate policymaking. This section advocates for place-sensitive climate policies. Finally, Section 6 outlines avenues for future research.

## **2. A conceptualization of green discontent and its spatial dimensions**

This section addresses the concept of green discontent and its spatial dimensions, examining how regional climatic, socio-economic, and institutional vulnerabilities influence public attitudes toward climate policies. It highlights how these factors contribute to dissatisfaction with insufficient climate action and resistance to policies perceived as excessively restrictive. The analysis emphasizes the significance of geographic disparities in shaping these reactions. The section concludes with a proposed conceptualization of green discontent as a multifaceted and spatially embedded phenomenon.

### **2.1. The need for climate policies**

Green discontent is shaped by two primary dimensions of vulnerability: climatic vulnerability, associated with regional exposure to natural hazards, and socio-economic and institutional vulnerability, reflecting economic dependencies, social disparities, and governance capacities. These dimensions exhibit significant spatial variability, which influences the dual manifestations of green discontent—dissatisfaction with inadequate climate action and opposition to policies perceived as excessively restrictive. Analyzing the intersection of these vulnerabilities within their geographic contexts offers a framework for understanding the uneven impacts of climate change, the divergent responses to climate policies and its consequences on individual attitudes towards climate action.

Climate change is an unavoidable emergency facing our modern world (IPCC, 2018). This phenomenon is increasingly evident and is reflected in an increase in the number, frequency, and intensity of extreme events (Trenberth et al., 2015; IPCC, 2023). The impacts of extreme weather events are not uniform, as they are geographically localized (Retchless et al., 2014), and their socioeconomic repercussions vary across countries and regions (Fankhauser & McDermott, 2014). Studies demonstrate that no region is spared; extreme events affect both developing and developed countries, albeit in different ways. While low-income countries often suffer disproportionately in terms of human casualties and loss of livelihoods (Hallegatte et al., 2016), high-income countries also face significant economic damages and long-term disruptions (Bouwer, 2019). However, the ability to respond and recover diverges due to varying socio-economic and institutional capacities (Sovacool et al., 2017). Wealthier nations typically possess more robust infrastructures and governance mechanisms, enabling them to mitigate the impacts more effectively, whereas developing countries often struggle with inadequate resources and institutional weaknesses (Fawzy et al., 2020). Consequently, the climate risk—defined as the intersection of hazard, vulnerability, and exposure—is unevenly distributed across the globe (IPCC, 2014). This disparity highlights the critical need for targeted policies that account for the diverse socio-economic and institutional contexts shaping regional vulnerabilities (Adger, 2006).

The uneven distribution of climate risks, driven by disparities in vulnerability and exposure, has prompted the development and implementation of various public policies to address the multifaceted impacts of climate change (Fawzy et al., 2020). These policies can be categorized into two main approaches: mitigation and adaptation (Chen et al., 2017). Mitigation policies focus on tackling the root causes of climate change by reducing greenhouse gas (GHG) emissions or preventing their further escalation. Key initiatives in this domain include transitioning to renewable energy sources, enhancing energy efficiency, implementing carbon pricing mechanisms such as taxes or cap-and-trade systems, and promoting large-scale reforestation to enhance carbon sequestration (IPCC, 2023). These measures are critical to limiting future climate risks and

achieving international commitments, notably the Paris Agreement's objective of restricting global warming to below 1.5°C compared to pre-industrial levels (UNFCCC, 2015). While these policies are vital for addressing long-term climate goals, their effectiveness and equity are inherently tied to the socio-economic and institutional contexts in which they are implemented, further emphasizing the spatial variability of both climate risks and policy impacts.

Adaptation policies, in contrast, focus on managing the consequences of climate change that are already occurring or expected in the future. These measures are designed to address both immediate challenges, such as floods and heatwaves, and long-term resilience by reducing vulnerabilities to future impacts. Examples include strengthening flood defenses, adopting drought-resistant farming techniques, modernizing urban infrastructure to withstand extreme weather, and fostering community-based disaster preparedness programs (Fankhauser, 2017). Unlike mitigation efforts, adaptation strategies often target specific local or regional vulnerabilities, as the risks and capacities of communities vary significantly (Hallegatte et al., 2016).

Figure 1 conceptualizes the relationship between climatic vulnerability and socio-economic and institutional vulnerability in shaping the emergence of green discontent across regions.

**Figure 1.** Two dimensions of vulnerability and green discontent

<b>Socio-economic and institutional vulnerability</b>	<p><b>Low climatic vulnerability, high socio-economic and institutional vulnerability</b></p> <p>Regions with limited exposure to climate risks but significant socio-economic and institutional challenges, where green discontent may arise due to a perceived mismatch between climate policies and immediate developmental priorities. These regions often prioritize economic growth and poverty alleviation over ambitious climate action, viewing certain policies as burdensome or misaligned with local needs.</p>	<p><b>High climatic vulnerability and high socio-economic and institutional vulnerability</b></p> <p>Regions facing severe exposure to climate risks combined with significant socio-economic and institutional weaknesses. Green discontent in these areas may stem from dissatisfaction with inadequate global climate action, as these regions often bear the brunt of climate impacts while contributing little to the problem. Simultaneously, resistance to restrictive policies may arise when such measures are perceived as diverting resources away from urgent socio-economic priorities.</p>
	<p><b>Low climatic and socio-economic and institutional vulnerability</b></p> <p>Regions with minimal exposure to climate risks and strong socio-economic and institutional resilience. Green discontent in these areas tends to be limited, with moderate engagement in climate issues. However, dissatisfaction may arise among environmentally conscious groups advocating for greater global climate action, despite the relatively low direct risks these regions face.</p>	<p><b>High climatic vulnerability, low socio-economic and institutional vulnerability</b></p> <p>Regions experiencing significant exposure to climate risks but constrained by weak socio-economic and institutional capacities. Green discontent in these areas may manifest as demands for stronger international climate action to address acute vulnerabilities. At the same time, resistance to climate policies can arise when such measures are perceived as misaligned with pressing developmental needs, such as poverty alleviation or infrastructure investment.</p>

**Climatic vulnerability**

*Source: Own elaboration.*

Figure 1 presents four theoretical scenarios, each characterized by varying levels of exposure to climate risks and governance or economic capacities, which influence public attitudes toward climate policies. This framework offers a structured approach to understanding how different vulnerabilities interact; however, real-world situations often deviate from these theoretical categories due to the complexity of socio-political, cultural, and environmental contexts. For instance, regions with low climatic vulnerability but high socio-economic and institutional vulnerability may still display strong climate advocacy if influential stakeholders prioritize global environmental goals. Similarly, regions facing high climatic vulnerability and low socio-economic capacity may unexpectedly support ambitious climate measures when external assistance or local initiatives align with community priorities.

## **2.2. ... and the growing green discontent about them**

The two types of policies are distinct but interrelated. Mitigation aims to stabilize the climate by addressing its causes, while adaptation deals with reducing the adverse effects that are already unavoidable. Both approaches are essential, as mitigation without adaptation leaves societies vulnerable to ongoing impacts, and adaptation without mitigation risks escalating the severity of future challenges (Klein et al., 2005).

The implementation of these policies, however, faces considerable challenges. Mitigation measures are often contentious due to their economic implications, particularly in regions that rely heavily on fossil fuels or industries with high carbon footprints (Markkanen & Anger-Kraavi, 2019). Adaptation efforts, although less politically sensitive, are frequently hindered by financial and institutional limitations, especially in developing countries that are disproportionately affected by climate change (Hallegatte et al., 2016). Furthermore, poorly designed adaptation measures risk exacerbating inequalities if they fail to consider the specific needs of vulnerable or marginalized populations (Marino & Ribot, 2012).

As a consequence, these policies have generated debate and two different types of discontent. A segment of the population questions whether we are doing enough for the ecological transition. They criticize current policies as too little and too slow to have a real environmental impact. On the other hand, another segment of the population believes that we are doing too much, too fast, and that these policies impose excessive constraints that disrupt their way of life. They feel overwhelmed by what they see as drastic and restrictive measures.

Critics calling for more ambitious and immediate action to avoid catastrophic ecological consequences (Shove, 2010) argue that current efforts to combat climate change and protect the environment are inadequate. IPCC reports support these claims and demonstrate the need for drastic action to limit global warming to 1.5°C (IPCC, 2018). Conversely, some people feel overburdened by these environmental policies. They believe that the policy actions such as the transition to renewable energy or restrictions on gasoline-powered vehicles will negatively impact their quality of life and impose excessive costs on them (Fairbrother, 2022). Furthermore, public opinion surveys often reveal that while many acknowledge climate change, a significant minority remains skeptical (Fairbrother, 2022). These differences of opinion create fertile ground for intense and sometimes polarizing political debates. Policymakers must navigate between these two currents to find a balance that maximizes environmental benefits while minimizing negative socio-economic impacts (Bickerstaff et al., 2013).

The uneven distribution of climate risks and policy impacts emphasizes the critical importance of integrating spatial justice into the design of climate policies. Effective policy frameworks must address environmental justice issues through both distributive and recognition justice (Hourdequin, 2016). Distributive justice pertains to the fair allocation of costs and benefits associated with climate policies, as these measures often disproportionately burden certain regions or social groups, potentially fueling resentment and opposition (Markkanen & Anger-Kraavi, 2019). Recognition justice, on the other hand, emphasizes the inclusion of marginalized or vulnerable communities in decision-making processes to ensure that diverse needs and contexts are appropriately addressed (Sovacool et al., 2019).

McCauley et al. (2019) emphasize that equitable climate policies demand inclusive approaches that integrate the socio-economic and spatial diversity of the populations they affect. These considerations are inherently tied to their geographic context. Distributive and procedural justice must align with the specific political, economic, and social frameworks in which they are implemented. According to Bulkeley et al. (2013), climate responses should not solely pursue global fairness but must also critically address how they may perpetuate or mitigate inequities within local communities, economies, and regions. Policymakers focusing on spatially informed strategies can strengthen public trust, alleviate social tensions, and ensure that climate policies advance both environmental goals and social equity. This perspective naturally extends to the spatial dimension of climate policies, where mitigation and adaptation efforts can produce geographically uneven outcomes, further emphasizing the need for equity in both design and implementation. Nevertheless, despite efforts to integrate principles of justice into climate policy design, green discontent persists. In many cases, the perception of inequitable burden-sharing or inadequate inclusion of marginalized communities in decision-making processes undermines trust and fuels dissatisfaction. This highlights the complexity of achieving both environmental effectiveness and social equity, particularly in contexts where regional disparities and socio-economic vulnerabilities exacerbate tensions.

Whether through mitigation or adaptation, climate policies can contribute to green discontent when their impacts are perceived as uneven or inequitable. Mitigation efforts, such as transitioning to renewable energy or implementing carbon pricing, often require substantial investments in infrastructure that disproportionately benefit certain regions, typically urban areas with greater technological and financial capacities (Santoalha & Boschma, 2021; Grashof & Basilico, 2024). Conversely, rural regions dependent on carbon-intensive industries may experience significant economic disruptions, including job losses, exacerbating territorial inequalities and fueling opposition (Roses & Wolf, 2018; Vona, 2023). Similarly, adaptation policies may unintentionally deepen socio-economic and regional disparities if resource allocation overlooks the needs of the most vulnerable areas. For instance, investments in climate-resilient infrastructure often favor urban redevelopment projects, leaving rural regions with outdated and underfunded housing stock more exposed to climate risks (Putsoane et al., 2024; Nkhonjera, 2020).

The economic and financial capacities of regions critically influence their ability to implement climate mitigation and adaptation measures, with significant ramifications for the emergence of green discontent. Affluent regions, benefiting from superior financial resources and technological expertise, are typically better equipped to transition to renewable energy, modernize infrastructure, and attract investments in green industries, thereby fostering economic growth and job creation in sustainable sectors (Santoalha & Boschma, 2021; Grashof & Basilico, 2024). Conversely, economically disadvantaged regions, particularly those reliant on carbon-intensive industries, encounter substantial barriers to transitioning. The financial strain of abandoning traditional industries, coupled with constrained capacity to diversify local economies or support affected

workers, exacerbates socio-economic vulnerabilities and territorial disparities (Roses & Wolf, 2018; Vona, 2023). These inequities contribute to the dual nature of green discontent: wealthier regions may demand more ambitious climate policies, while economically marginalized areas resist measures perceived as disproportionately burdensome or disruptive. Absent targeted financial support and equitable policy design, these imbalances risk intensifying green discontent, undermining both public acceptance of climate measures and the overall effectiveness of global climate objectives (Sovacool et al., 2021). Yet the phenomenon transcends simple binaries between wealthy and economically marginalized regions. Even in affluent areas, green discontent can manifest in opposition to climate policies perceived as excessively restrictive or costly, as seen in movements such as the Yellow Vests in France, where protests arose against fuel tax increases that disproportionately affected rural and suburban populations (Bourdin & Torre, 2021). Conversely, economically disadvantaged regions also exhibit instances of strong advocacy for ambitious climate action. For example, small island developing states (SIDS), despite their limited resources, have consistently been at the forefront of international calls for robust mitigation measures, motivated by their heightened exposure to climate risks (Betzold, 2015).

The political and institutional quality of regions also significantly influences the perception and implementation of climate policies. Regions with robust governance structures, high levels of institutional trust, and inclusive decision-making processes are more likely to garner public support for ambitious climate initiatives (Rodríguez-Pose & Bartalucci, 2024). Such areas benefit from transparent communication, stakeholder engagement, and the perception that policies are implemented fairly. On the other hand, regions with weaker governance frameworks or a history of political marginalization often perceive climate policies as inequitable or imposed without sufficient consultation (Delcayre & Bourdin, 2025). For instance, rural areas dependent on carbon-intensive industries, such as coal mining or traditional agriculture, frequently view green transition measures as threats to their economic and cultural fabric (Weber, 2020). In these cases, the lack of trust in political institutions and perceived neglect of local priorities amplify resistance to climate initiatives.

At total, the spatial dynamics of climate policy impacts are profoundly influenced by the interaction of environmental, social, economic, and institutional vulnerabilities. Regions already exposed to significant climate risks, such as droughts, flooding, or rising sea levels, often face compounded challenges due to their limited resources or weak governance structures, which constrain their capacity to implement effective mitigation and adaptation strategies (Hallegatte et al., 2016). These areas bear a double burden: heightened exposure to climate hazards and inadequate institutional or financial support to address them. This dual vulnerability increases the risk of protest movements emerging in these regions, either in response to perceived inaction on climate issues or in opposition to climate policies deemed misaligned with local priorities. For example, while some communities may demand more robust climate action to mitigate their acute exposure to risks, others may resist such measures if they are seen as secondary to addressing pressing socio-economic inequalities. In such cases, the prioritization of immediate socio-economic needs over long-term environmental objectives can fuel dissatisfaction, further complicating the design and implementation of equitable and effective climate policies. Simultaneously, regions with stronger economic and institutional capacities may still encounter green discontent, particularly when climate policies are perceived as disproportionately burdensome or poorly aligned with the need for more action.

Green discontent can thus be conceptualized as a multifaceted and spatially embedded phenomenon, characterized by dissatisfaction with climate policies perceived as inadequate or inequitable. It arises from the tension between two opposing narratives: one advocating for more ambitious climate action to address the escalating ecological crisis, and another expressing resistance to policies viewed as economically disruptive or socially unjust. These narratives are

shaped by a combination of cognitive, socioeconomic, cultural, and geographic factors, with geography playing a critical but often underexplored role. While it is well established that climate change disproportionately affects the global poor (Marino & Ribot, 2012), substantial regional disparities within countries also play a decisive role in shaping public attitudes toward climate action (Weckroth & Ala-Mantila, 2022). Such disparities affect both the perceived fairness and effectiveness of climate policies and the degree of public support or opposition they generate.



### 3. An overview of the forms of green discontent

Building on the spatial and socio-economic dimensions of green discontent, this section examines its dual nature: dissatisfaction with inadequate climate action and resistance to policies perceived as excessive or misaligned with local priorities. It begins by addressing concerns over insufficient efforts before exploring opposition to the perceived burdens of climate policies.

#### 3.1. “We are not doing enough”

Dissatisfaction with climate change stems primarily from the perception that the actions being taken to address its effects are not sufficient, equitable, or effective. Most researchers emphasize that current actions are largely insufficient to achieve the necessary climate goals and avoid the most severe impacts of climate change (IPCC, 2023). This perception of inadequacy can fuel strong discontent, especially among citizens and environmental activists, who call for more ambitious and immediate action (Shove, 2010; Farstad, 2018).

Furthermore, citizens’ growing expectations about the speed and effectiveness of climate action may also intensify discontent. Climate activists and a growing proportion of the population feel that the actions being taken are neither fast enough nor ambitious enough to respond to the climate emergency (Rishi, 2022). The slow implementation of climate policies is often criticized as inadequate in the face of the accelerating impacts of climate change (Stokes, 2020).

#### **Box 1.** Airport blockades in Europe: climate activists strike hard

In July 2024, several European airports, including Cologne-Bonn in Germany, witnessed dramatic actions by environmental activists. These activists, from various climate movements such as Extinction Rebellion and Letzte Generation, employed non-violent civil disobedience techniques, including gluing their hands to the tarmac, to temporarily paralyze air traffic and raise public awareness about the need for faster action against climate change.

Their main demand was the phasing out of fossil fuels by 2030, a measure deemed essential to limit global warming to 1.5°C in line with the commitments of the Paris Agreement. This action, part of a series of interventions targeting the airline industry—one of the most polluting sectors—led to significant flight delays and cancellations, affecting hundreds of passengers and eliciting mixed reactions from the public.

Supporters of the movement argue that these acts of civil disobedience are justified given the inaction of governments and major corporations in reducing greenhouse gas emissions. Conversely, critics denounce these disruptive methods as excessive, arguing that they hinder ordinary citizens without genuinely advancing the climate cause. These events are part of an escalation of militant actions in Europe, marking a new phase in the climate fight, where some activists feel it is necessary to increase pressure on political and economic decision-makers to accelerate the ecological transition.

*Source: The Guardian (2024).*

In addition to the slowness, the disparities between national commitments and concrete actions can also be a source of discontent. This is particularly evident in regions where the gap between promises and delivery is most acute, such as those heavily reliant on fossil fuel industries or regions with limited institutional capacity. Citizens often observe a gap between the promises made by governments at international climate conferences and the measures actually implemented at the

national level. This gap can reinforce the idea that governments are not taking the climate crisis seriously enough (Hopke & Hestres, 2018).

There is also institutional discontent, which occurs when individuals and groups lose faith in the political and scientific institutions responsible for implementing ecological transition policies. Perceptions of corruption, inefficiency, or a lack of transparency can fuel this type of discontent (Rafaty, 2018). This is often accentuated in regions with weaker governance structures or where institutional capacity is insufficient to translate national policies into local action, leading to further erosion of trust. Citizens may doubt the ability of governments and international organizations to manage the transition fairly and effectively, which can create opposition to climate policies, even among those who recognize the need to act on climate change (Bickerstaff, 2024). It can also create what Smith & Mayer (2018) refer to as the existence of a 'social trap', where a lack of trust undermines the impact of risk perceptions on the public's willingness to engage in environmental friendly behavior or support policies to tackle climate change.

**Box 2.** Criticism for inaction on flooding in Spain

In November 2024, the Valencia region of Spain was hit by devastating floods that killed over 200 people and caused significant material damage. While these extreme events are partly attributed to climate change, they also highlighted the shortcomings of urbanization policies and the absence of adequate preventive measures. Uncontrolled urban development in high-risk areas, combined with a lack of infrastructure adaptation, intensified the disaster. Experts and citizens alike denounce the authorities' failure to learn from previous episodes, even though similar events had already struck the region, notably the great flood of 1957, which led to the diversion of the Turia River to protect the city.

Beyond the management and planning of the territory, the slowness of the political response has exacerbated discontent. Delays in government intervention and the inadequacy of emergency aid were sharply criticized. Residents and local associations pointed to (i) the lack of short-term resources, and (ii) a discrepancy between the government's stated climate commitments and the reality of the actions taken on the ground over the medium to long term.

*Source: COGITO (2024).*

Moreover, the perceived ineffectiveness of policies can be exacerbated by inadequate communication and a lack of citizen participation in decision-making processes. Regions where citizens feel excluded from these processes often exhibit heightened discontent, particularly if policies are perceived as imposed from central authorities without consideration of local contexts. Research shows that when citizens are not involved in climate policy decisions, this can increase their distrust and opposition (Bäckstrand, 2003; Tsang et al., 2009).

Lastly, perceptions of inequitable distribution of the efforts and benefits of the ecological transition also contribute to discontent. Climate policies can be seen as favoring economic elites or certain regions at the expense of more vulnerable communities, increasing social tensions and a sense of injustice (Sovacool et al., 2019). Greta Thunberg (Zulianello & Ceccobelli, 2020) is currently at the forefront of this discourse, denouncing both capitalism and the prevailing patriarchy. Spatially, less developed regions or marginalized areas within wealthy countries, may feel doubly penalized by climate policies: through their ineffectiveness in addressing localized climate impacts and their economic costs that disproportionately burden less resilient economies. Discontent here is conflated by the observation that climate change is hitting hard those who have contributed less to it and who have had the least say in policy responses to it.

## 3.2. “We are doing too much”

### 3.2.1. A dissatisfaction regarding climate policies

Dissatisfaction with the disproportionate reach of green policies can take various forms, each of which stems from different aspects of these policies and their perceived impacts on society and the economy. These forms of discontent are often geographically uneven, as the socio-economic and cultural contexts of different regions shape how policies are perceived and experienced. They are also influenced by different social, economic, and political concerns.

First, socio-economic discontent arises from fears and resistance related to the economic costs of climate policies and their social consequences. Individuals and businesses may feel burdened by the additional expenses required to comply with new environmental regulations, such as carbon taxes, renewable energy subsidies, or emissions restrictions (Weber & Cabras, 2017). This discontent can be found across different social categories and occupations, as exemplified by farmers protesting against environmental policies (Van der Ploeg, 2020).

#### **Box 3.** Farmers' protests in the Netherlands: nitrogen at the heart of the conflict

In 2023, Dutch farmers staged large-scale protests against the government's plan to significantly reduce nitrogen emissions. These measures, which imposed restrictions on fertilizer use and a reduction in livestock numbers, were seen as a direct threat to the future of many farms.

Protesters, frustrated by an ecological transition viewed as too harsh and disconnected from reality, employed dramatic pressure tactics: blocking roads and highways with tractors, disrupting essential infrastructure, and symbolically occupying government buildings. Some even dumped manure in front of public institutions to express their discontent.

These actions highlighted a divide between the government's environmental goals and the economic and social concerns of farmers. While the need to reduce nitrogen emissions to preserve biodiversity and improve water quality is widely acknowledged, many demonstrators criticize the lack of support and the risk of thousands of family farms disappearing. Faced with the intensity of the protests and the scale of the movement, the Dutch government was compelled to reassess some of its climate ambitions, sparking a broader debate in Europe on how to integrate social justice and ecological transition.

*Source: The Guardian (2023).*

Low-income households and small businesses may perceive these costs as disproportionately heavy, exacerbating economic inequalities and generating resentment towards environmental policies (Carattini et al., 2018). Furthermore, this phenomenon is particularly exacerbated in cases where environmental policies may increase inequalities to the detriment of vulnerable populations (Markkanen & Anger-Kraavi, 2019). For instance, regions already struggling with long-term economic decline, such as post-industrial areas, face compounded challenges, as they lack the investment capacity to adapt to green policies effectively (Roses & Wolf, 2018).

Consequently, social discontent arises when ecological transition policies are perceived as unfair or inequitable. This is because vulnerable communities, including workers in carbon-intensive industries, may fear loss of jobs and livelihoods as the result of decarbonization measures. The sense of injustice can be exacerbated if these groups do not benefit from the new economic opportunities created by the green transition. Spatially, this discontent is more pronounced in

regions where decarbonization efforts lead to concentrated job losses, such as coal mining areas or manufacturing hubs with outdated technologies. Policies that are perceived to favor certain segments of society at the expense of others can therefore fuel significant social discontent (Markkanen & Anger-Kraavi, 2019).

The same discourse must also account for regional disparities in economic and technological capacity. Many regions that are more vulnerable to green transition policies due to their production structure (e.g., carbon-intensive industries) or technological capacity are either low-income regions or regions that have already experienced long-term decline due to the de-industrialization process of the past decades (Roses & Wolf, 2018; Weber, 2020). The transition is likely to compound their plights due to the direct effects in terms of job losses, as well as their negative externalities, such as rampant crime, declining social capital, among others (Vona, 2023). Additionally, Maucorps et al. (2023) show that these regions will have to invest more to sustain the efforts required by climate policies, despite generally having a lower investment capacity. This regional imbalance may lead to a diversion of resources away from other critical needs, such as infrastructure or healthcare, exacerbating the perception of policy unfairness in less developed areas.

Some forms of green discontent also stem from cultural and identity concerns. Green transition measures may be perceived as a threat to traditional ways of life, cultural practices, and local identities. For example, rural communities may feel a loss of control over their land and natural resources due to renewable energy projects imposed by external entities (Bourdin & Nadou, 2020). Bourdin and Torre (2023) have shown that these types of environmental policies disrupt the daily lives of citizens, leading to local protests and public discontent. This spatial dimension is particularly evident in rural areas where renewable energy projects may conflict with existing land uses or cultural values. This discontent is often exacerbated by a lack of consultation and participation of local communities in the decision-making process (Segreto et al., 2020).

**Box 4.** The Yellow vests: a revolt against ecological taxation and social inequality

The yellow vests movement, which began in France in November 2018, is one of the largest social mobilizations against a climate policy perceived as unfair and economically punitive for the working class. At the root of the protest was the announcement of an increase in fuel tax, justified by the government as a necessary measure to finance the ecological transition and reduce dependence on fossil fuels.

However, the increase was widely rejected by workers in rural and suburban areas who rely heavily on cars for their daily commute. The movement quickly crystallized wider discontent with social inequality and a sense of disconnect between political elites and the population. Demonstrations, often spontaneous and organized via social networks, took the form of blockades of traffic circles, toll booths, and roads, as well as weekly marches in major cities. The movement has witnessed episodes of urban violence in cities such as Paris, where clashes between demonstrators and police have occurred.

Faced with this massive protest, the government suspended the carbon tax hike in December 2018 and launched a Grand débat national to address citizens' concerns. However, the Gilets jaunes movement revealed a social and territorial divide in France, raising the question of the social acceptability of climate policies and their differentiated impact across social categories. This movement has left its mark on European political debates and inspired similar mobilizations in several countries, where the issue of climate and social justice remains central.

*Source: Bourdin and Torre (2023).*

Finally, some people may express dissatisfaction with the technological innovations associated with the ecological transition. New technologies, such as renewable energy or electric vehicles, may be seen as impractical, expensive, or disruptive (Hidrué et al., 2011; Faulques et al., 2022). Skepticism about these technologies can lead to resistance to their adoption, which can fuel discontent with the policies that promote them. The geographic distribution of this resistance often reflects local contexts, with opposition concentrated in regions where these technologies disrupt established practices or fail to deliver tangible benefits. Local discontent often takes the form of concerns about the social acceptability of renewable energy projects (Segreto et al., 2020; Bourdin & Chassy, 2023). In this context, several authors, such as Ceonen et al. (2012) and Köhler et al. (2019), have argued that it is unrealistic to think that the implementation of ecological transition policies at the local level can be successful everywhere, regardless of the local context. Identifying regions where green discontent is minimized could help policymakers prioritize locations where these technologies are most likely to succeed (Bourdin et al., 2020).

### **3.2.2. The manifestations of climate skepticism**

While socio-economic, cultural, and technological concerns fuel significant resistance to climate policies, another key dimension of green discontent arises from climate skepticism. This form of discontent, distinct yet intertwined with opposition to policy impacts, challenges the scientific consensus on climate change or the necessity of specific responses. Understanding the manifestations of climate skepticism provides further insight into the broader spectrum of resistance to climate action.

Climate skepticism, also referred to as climate change denial, questions the scientific consensus regarding the existence of climate change, its causes, its severity, or the adequacy of proposed responses (Whitmarsh et al., 2011). This skepticism assumes various forms, which are distinguished by the specific doubts or challenges they raise. These forms often exhibit spatial variation, shaped by regional socio-economic conditions, cultural norms, and differing levels of exposure to climate risks. While these forms are not mutually exclusive, individuals may adhere to multiple types of skepticism simultaneously.

#### **Box 5. Europe's far right and climate skepticism: a challenge for environmental policies**

In Europe, several far-right political parties have adopted a skeptical stance on climate change, questioning scientific findings regarding its existence, anthropogenic origin, and impact. This epistemic skepticism, which undermines the scientific consensus on climate, is often part of a broader rhetoric rejecting political and scientific elites.

A prominent example is the Alternative für Deutschland (AfD) party in Germany, which has made climate skepticism a key element of its political discourse. The AfD views climate policies as an ideological imposition, denouncing “climate alarmism” as a justification for a costly and unjustified energy transition. The party openly opposes Germany's commitments under the Paris Agreement and advocates a return to coal and fossil fuels, arguing that climate variations are natural and that environmental measures undermine the economy and national sovereignty.

This phenomenon is not limited to Germany. Other populist and nationalist parties in France (Rassemblement National), Italy (Fratelli d'Italia), and the Netherlands (Partij voor de Vrijheid - PVV) have downplayed the climate crisis, associating it with a desire by international institutions to impose regulations contrary to national interests. Some leaders of these parties have even claimed that climate

policies restrict individual freedoms and reinforce excessive control by states and supranational organizations such as the EU.

The instrumentalization of climate skepticism by these parties enables them to mobilize certain rural and industrial electorates who view ecological regulations as a threat to their jobs and way of life. In regions dependent on fossil fuels or heavy industry, these discourses resonate particularly well by contrasting a conservative vision of economic development with the ecological transition perceived as punitive.

Faced with the rise of climate skepticism on the far right, political decision-makers in Europe encounter several challenges. On one hand, it is crucial to communicate more effectively about the urgency of climate change and the benefits of ecological transition to prevent the issue from becoming politically polarized. On the other hand, it is essential to propose fair and inclusive climate policies to avoid them being perceived as imposed “from above” by elites out of touch with popular concerns.

*Source: Rodríguez-Pose and Bartalucci (2024)*

The first form, epistemic skepticism, challenges the very existence of climate change. Skeptics in this category often reject scientific evidence and cite natural or historical climate variability to support their arguments (Painter and Ashe, 2012). This skepticism is more prevalent in regions heavily reliant on carbon-intensive industries, where the acceptance of climate change could threaten economic stability or established ways of life.

Attributional skepticism characterizes those who accept the reality of climate change but reject the idea that human activity is its primary cause. These skeptics attribute climate change to natural phenomena, such as solar activity or cyclical climate patterns (Poortinga et al., 2019). Regions where public discourse historically emphasizes natural climatic variations, such as those experiencing frequent geological or meteorological changes, often show a higher prevalence of this form of skepticism.

Impact skepticism, another form, minimizes the severity of climate change. While skeptics in this group acknowledge the anthropogenic origins of climate change, they downplay the risks and assume that humanity will adapt without significant difficulty (Marlon et al., 2019). Many also place faith in technological advancements to mitigate the effects. This skepticism tends to emerge in regions with higher technological capacity or economic resilience, where confidence in adaptive capabilities reduces concern about potential climate impacts.

Political skepticism focuses on opposition to government-led climate policies. While recognizing the existence and human influence on climate change, skeptics argue that the economic costs of proposed policies are too high or that such measures infringe on individual freedoms or market dynamics (Poortinga et al., 2011; Van Rensburg & Head, 2017). Regions where climate policies threaten established economic structures, such as coal-mining areas or industrial hubs, or where political ideologies favor deregulation, often display heightened political skepticism.

Finally, resignation skepticism reflects a belief that efforts to mitigate climate change are futile. This position is adopted by individuals who, despite recognizing the severity of the issue, doubt the feasibility of reversing or mitigating its effects (Mayer & Smith, 2019). Contributing factors include distrust in institutions, perceived inadequacy of proposed solutions, or the scale of changes required (Matthews, 2015). This skepticism frequently arises in regions with limited governance capacity or high vulnerability, where the perceived inability to address climate change reinforces a sense of fatalism.

**Table 1** provides a synthesis of the dual nature of green discontent by categorizing its manifestations, underlying drivers, geographic characteristics, and policy implications. It emphasizes the spatial and socio-economic dimensions that shape public attitudes toward climate action, whether they stem from dissatisfaction with insufficient measures or resistance to policies perceived as excessive or inequitable. Green discontent reflects two opposing narratives: one advocating for stronger and more immediate climate action and another resisting the socio-economic and cultural disruptions associated with policy implementation. The table identifies specific manifestations of these narratives, linking them to the broader geographic and institutional contexts that influence their prevalence.

**Table 1.** Green discontent: manifestations, drivers, and spatial characteristics

Dimension	Not Enough Climate Action	Too Much Climate Action
<b>Manifestations</b>	<ul style="list-style-type: none"> <li>- Protests demanding urgent climate measures (e.g., school strikes for climate).</li> <li>- Dissatisfaction with perceived policy inaction or delays.</li> <li>- Criticism of global leaders for unfulfilled climate commitments.</li> </ul>	<ul style="list-style-type: none"> <li>- Movements opposing specific policies (e.g., Yellow Vest protests, farmers' protests).</li> <li>- Resistance to regulations perceived as burdensome or costly.</li> <li>- Skepticism of rapid policy implementation disrupting local economies.</li> </ul>
<b>Drivers</b>	<ul style="list-style-type: none"> <li>- Perception of increasing climate risks and ecological emergencies.</li> <li>- Distrust in institutional capacity to address climate challenges.</li> <li>- Advocacy for long-term global equity.</li> </ul>	<ul style="list-style-type: none"> <li>- Economic costs, job losses, or inequitable policy impacts.</li> <li>- Cultural and identity conflicts tied to local traditions and resource use.</li> <li>- Distrust of policy fairness or the prioritization of urban over rural areas.</li> </ul>
<b>Geographic Characteristics</b>	<ul style="list-style-type: none"> <li>- High climatic vulnerability, often in regions experiencing rising sea levels, droughts, or extreme weather.</li> <li>- Urban areas exposed to climate risks, pushing for ambitious adaptation measures.</li> <li>- Islands advocating globally for immediate action.</li> </ul>	<ul style="list-style-type: none"> <li>- Regions reliant on carbon-intensive industries, e.g., coal mining or agriculture hubs.</li> <li>- Rural areas opposing renewable energy projects disrupting traditional practices.</li> <li>- Affluent suburban or rural communities opposing fuel or transport taxes.</li> </ul>

Source: Own elaboration.

The first dimension, dissatisfaction with insufficient climate action, often arises in regions with high climatic vulnerability. These include areas exposed to extreme weather events, rising sea levels, or persistent droughts. Advocacy for ambitious measures is particularly strong in such regions, as seen in urban areas or globally in islands. In contrast, the second dimension, resistance to perceived policy overreach, is prevalent in rural or economically disadvantaged regions. These areas often rely on carbon-intensive industries and face significant socio-economic challenges in adapting to green transition measures. This duality highlights the importance of regional diversity in shaping green discontent. The table highlights that while high climatic vulnerability drives demands for greater action, socio-economic and institutional vulnerabilities often amplify resistance to policies perceived as burdensome or misaligned with local priorities. The relationship between these factors illustrates

the complexity of addressing green discontent, which cannot be disentangled from its spatial and socio-political context.



## **4. A geography of green discontent**

### **4.1. How to measure green discontent?**

To analyze and distinguish between the two primary forms of green discontent—“We Are Not Doing Enough” (WANE) and “We Are Doing Too Much” (WDTM)—this study employs a dual-method approach that combines survey data from the 2024 Eurobarometer with voting patterns from European elections. This section outlines the methodology, ensuring clarity and replicability in measuring these two dimensions of public dissatisfaction with climate policies.

#### **Measuring green discontent using Eurobarometer 2024 data**

Survey data from the Eurobarometer provides a comprehensive assessment of public perceptions regarding climate policies, including their effectiveness and importance. To construct indicators capturing WANE and WDTM, four key survey questions were selected. The first two, Q7\_1 and Q7\_3, assess perceptions of the effectiveness of the European Green Deal and the REPowerEU initiatives, respectively. Since REPowerEU represents a significant mitigation strategy within the broader European climate policy framework, its inclusion strengthens the measure of public sentiment regarding climate policies. The other two questions, Q3 and Q8, capture how respondents prioritize climate change and environmental issues, both now and in the future.

To estimate green discontent, the first step involved calculating an ineffectiveness score based on responses to Q7\_1 and Q7\_3. This score aggregates the percentage of respondents who consider these policies either “not very effective” or “not at all effective.” High values of this score indicate general dissatisfaction with the perceived effectiveness of climate policies but do not distinguish whether the dissatisfaction arises from a belief that policies are too weak (WANE) or too strong (WDTM). To capture this distinction, the analysis incorporated responses from Q3 and Q8, which measure the importance assigned to climate issues.

The priority scores from Q3 and Q8 were normalized to a 0–1 scale to facilitate comparability across regions. This was achieved by dividing the percentage of respondents who selected “climate change and the environment” as a top priority by 100. Higher values indicate greater prioritization of climate issues and reflect stronger concerns about climate action, while lower values suggest a diminished emphasis on climate policy.

To integrate both present and future concerns about climate change, an aggregated priority score was computed by averaging the normalized scores of Q3 and Q8. This combined measure ensures that the final indicator reflects both current and prospective perceptions of climate change importance. The integration of these elements allows for a more refined distinction between the two forms of green discontent. Dissatisfaction with perceived inaction on climate change, or WANE, was estimated by multiplying the ineffectiveness score (derived from Q7\_1 and Q7\_3) by the combined priority score. This formulation ensures that WANE increases when respondents perceive climate policies as ineffective and prioritize climate issues. In contrast, dissatisfaction with perceived policy overreach, or WDTM, was calculated by multiplying the ineffectiveness score by the inverse of the combined priority score ( $1 - \text{combined priority score}$ ). This approach captures cases where individuals regard climate policies as ineffective but assign a low priority to climate action and reflects skepticism or resistance to stronger environmental policies.

## **Measuring green discontent using voting data**

Beyond individual survey responses, electoral behavior provides an additional perspective on regional attitudes toward climate policies. To capture these dynamics, this study integrates voting data from the European NUTS-Level Election Dataset, which contains detailed regional election results across multiple European election cycles. The dataset covers voting patterns at the NUTS2 level, allowing for a spatially disaggregated analysis of political preferences related to climate policies. This approach helps contextualize shifts in green discontent and assess whether electoral preferences align with survey-based indicators.

Political parties were classified along the GAL-TAN (Green/Alternative/Libertarian vs. Traditional/Authoritarian/Nationalist) spectrum based on expert surveys conducted as part of the Chapel Hill Expert Survey (CHES) (Jolly et al., 2022). This classification spans multiple election cycles, including 1994, 1999, 2004, 2009, 2014, and 2019 in order to get a longitudinal perspective on how political affiliations have evolved in relation to climate concerns. To analyze regional voting trends, the share of votes for GAL and TAN parties was calculated at the NUTS2 level for multiple European elections.

Regions where WANE scores are high and GAL parties have gained electoral support over time suggest an increasing demand for stronger climate action. Conversely, areas where WDTM scores are high and where TAN parties have gained ground indicate growing resistance to environmental regulations and a preference for economic over environmental concerns. These patterns provide a deeper understanding of how climate-related injustices translate into political behavior.

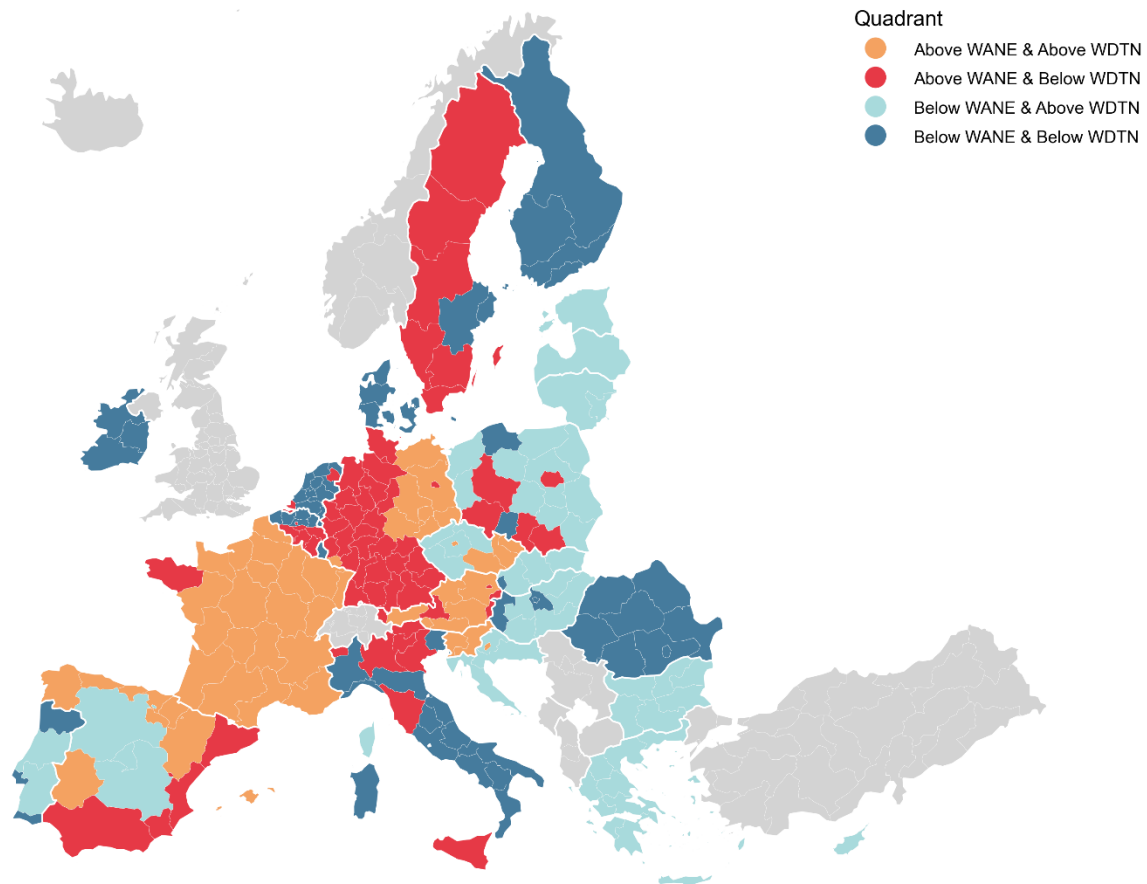
## **Other data to be considered in future research**

In addition to the Eurobarometer and voting pattern data used in this study, several other datasets were considered as potential sources for further refining the measurement of green discontent. One such dataset is the European Social Survey (ESS) from 2016, which includes several relevant variables capturing public perceptions of climate change, willingness to support environmental policies, and attitudes toward taxation and regulation. The ESS data provides a rich foundation for exploring the psychological and behavioral dimensions of green discontent. Questions addressing concerns about climate change, personal responsibility, and policy support could be used to construct alternative indicators of WANE and WDTM, allowing for a deeper understanding of how individuals perceive and react to climate-related policies. The ESS dataset includes responses on the likelihood of governments taking meaningful action to address climate change, the willingness of individuals to accept higher taxes on fossil fuels, and levels of support for subsidies on renewable energy. These indicators offer significant understandings into whether dissatisfaction reduces from a perceived lack of action or from concerns over excessive intervention. Although this dataset was ultimately not incorporated into the final analysis, it remains a promising avenue for future research, particularly in understanding how individual-level attitudes align with regional patterns of green discontent.

Beyond survey data, panel data from multiple rounds of the ESS were explored as an additional source for tracking long-term trends in environmental concern. The Human Values section of the ESS includes a question on the importance of caring for the environment, which could be used to build a longitudinal index of environmental concern across European regions. The panel structure of this dataset allows for the examination of temporal shifts in environmental attitudes and provides insights into whether certain regions have experienced a growing or declining concern for climate change over time. However, inconsistencies in the availability of data across different rounds, along



**Figure 3.** A typology of green discontent



Source: Source: Own elaboration based on EUROBAROMETER.

The map synthesizes four archetypes illustrating the spatial heterogeneity of green discontent in Europe. Urban regions exposed to significant climate risks, such as Amsterdam in the Netherlands and Venice in Italy, exemplify areas with high WANE and low WDTM scores. These cities face acute threats from rising sea levels and flooding, compounded by dense populations and economic dependence on tourism (e.g., Brittany, France, and Catalonia, Spain) and global trade (Lower Saxony, Germany). In these contexts, dissatisfaction with existing climate policies is pronounced, as residents view them as insufficient to mitigate the severe risks they face. High WANE scores in these regions reflect a pressing demand for ambitious climate policies, while low WDTM scores indicate broad public support for green initiatives despite potential economic costs. Additionally, metropolitan regions such as Vienna, Berlin, and Warsaw demonstrate a strong tradition of environmental activism. Vienna stands out for its innovative sustainable urban development practices, including energy-efficient housing and extensive public transport networks, while Berlin and Warsaw are active members of the C40 Cities network, which brings together cities worldwide in the fight against climate change. Berlin is renowned for its progressive environmental policies and vibrant grassroots movements, while Warsaw has made significant progress in urban resilience planning and energy transition. In these metropolitan regions, civic engagement and institutional commitment converge to place climate issues on the political agenda. This is reflected in high WANE

scores, which signal dissatisfaction with perceived inaction, and low WDTM scores, indicating broad public support for ambitious climate measures despite potential economic costs.

Conversely, rural regions heavily dependent on carbon-intensive industries, such as Silesia in Poland, parts of Greece, and Corsica in France, demonstrate the opposite pattern, with low WANE and high WDTM scores. In Silesia, the historical reliance on coal mining has fostered resistance to climate policies perceived as threatening the local economy and jobs. Similarly, parts of Greece, where agriculture and small-scale industries are significant, often view environmental regulations as adding extra burdens on already fragile livelihoods. In Corsica, the local population frequently perceives green policies as disruptive to the tourism sector, a critical economic driver. These dynamics contribute to high WDTM scores, resulting in strong opposition to green measures seen as economically detrimental and low WANE scores that illustrate a lack of urgency in prioritizing climate action in these regions.

Regions that exhibit both low WANE and low WDTM scores, such as Copenhagen in Denmark, Stockholm in Sweden, southern Italy, parts of Norway, Romania, Ireland, and the Algarve in Portugal, represent areas where climate policies are not a major source of dissatisfaction or significant opposition. These regions combine various factors that contribute to this profile. In metropolitan hubs like Copenhagen and Stockholm, advanced climate governance and widespread public support for green initiatives foster a sense of satisfaction with existing policies. These cities benefit from progressive environmental strategies, strong institutional frameworks, and high public trust in government action. Consequently, neither dissatisfaction with insufficient action nor opposition to ambitious policies dominates public opinion. Here, sustainable development is seamlessly integrated into urban planning and daily life, leaving little room for contention.

In contrast, southern Italy and Romania reflect a different dynamic. These regions face economic challenges, including high unemployment and structural development issues, which deprioritize environmental concerns. The population may view climate policies as secondary to more immediate socioeconomic needs, resulting in low WANE scores. Meanwhile, the lack of strong opposition reflects limited public engagement with or awareness of climate measures, rather than active support or resistance.

In the Algarve, we also observe low WANE and low WDTN. Its economy relies heavily on tourism, which benefits from well-preserved natural landscapes. Consequently, there is broad acceptance of measures aimed at maintaining environmental quality, reducing opposition to green initiatives. At the same time, the region's relatively mild climate risks, coupled with its focus on economic recovery based on tourism development, moderate public dissatisfaction with the pace of climate action. This balance highlights a pragmatic coexistence of economic and environmental priorities, with neither dissatisfaction nor resistance dominating public sentiment.

Finally, regions with high WANE and high WDTM scores, such as large parts of France, eastern Germany, and Austria, reflect dynamics shaped by a combination of socioeconomic challenges, institutional factors, and public perceptions of climate policy effectiveness. In these regions, dissatisfaction with current climate policies coexists with significant opposition to green measures viewed as overreaching. In France, the dual presence of high WANE and high WDTM scores reflects broader societal dynamics extending beyond environmental concerns. This pattern aligns with well-documented trends of public discontent and skepticism towards institutional policies, a phenomenon extensively explored in political and sociological studies of French society. Historically, France has exhibited strong traditions of public mobilization and critique of government action, often driven by perceptions of inadequate consultation, insufficient support for local populations, or policies seen as disconnected from everyday realities. This broader pattern of dissatisfaction also manifests in

environmental issues, where many regions express frustration with the perceived ineffectiveness of existing climate policies while simultaneously resisting measures viewed as overly constraining or economically burdensome. For instance, rural and semi-rural areas, particularly in regions like Bourgogne-Franche-Comté or Centre-Val de Loire, often feel that national environmental policies fail to adequately consider their specific socioeconomic contexts, exacerbating a sense of disconnect between local realities and central government priorities. Eastern Germany, including regions like Saxony-Anhalt and Thuringia, provides another example. These areas, shaped by post-industrial legacies, still bear economic scars from the transition following reunification, with many communities dependent on carbon-intensive industries or fossil fuels. The high WANE scores indicate a belief that existing measures do not sufficiently address economic or environmental challenges, while the high WDTM scores reflect resistance to further environmental regulations perceived as disproportionately targeting their already fragile economies. In Austria, regions outside Vienna, such as Upper Austria or Styria, present a similar dual dynamic. These areas are often economically reliant on manufacturing, energy production, or agriculture, industries particularly affected by stricter environmental policies. The high WANE scores highlight dissatisfaction with perceived inadequacies in government action, while the high WDTM scores reveal resistance to what is seen as disproportionate policy burdens.

### 4.3. Testing differences between groups of regions

As a complementary analysis, we also performed a series of T-test for equality of means to assess the statistical differences between groups of regions. Table 2 presents the results of a two-sample t-test with equal variances, analyzing differences in green discontent across three 2021-2027 Cohesion Policy categories: more developed, transition, and less developed regions. Green discontent is measured both overall and in its two subcategories: “We are not doing enough” and “We are doing too much”.

**Table 2.** Results two-sample T-test with equal variances: Green discontent by 2021-2027 Cohesion policy categories

Variables / Categories	Nr. Obs.		Mean		Diff.	St. Err	P-value
	(1)	(2)	(1)	(2)			
<i>More developed (1) vs. others (2)</i>							
Green discontent (overall)	95	147	0.494	0.575	-0.081	0.024	0.001
We are not doing enough	95	147	0.268	0.192	0.076	0.015	0.000
We are doing too much	95	147	0.226	0.383	-0.157	0.017	0.000
<i>Transition (1) vs. others (2)</i>							
Green discontent (overall)	67	175	0.605	0.519	0.086	0.026	0.001
We are not doing enough	67	175	0.256	0.209	0.047	0.017	0.005
We are doing too much	67	175	0.349	0.310	0.039	0.022	0.076
<i>Less developed (1) vs. others (2)</i>							
Green discontent (overall)	80	162	0.550	0.540	0.010	0.026	0.682
We are not doing enough	80	162	0.139	0.263	-0.124	0.014	0.000
We are doing too much	80	162	0.412	0.277	0.135	0.018	0.000

Source: Own elaboration.

The mean overall green discontent is lower in more developed regions (0.494) than in the other two regions categories (0.575). A higher proportion of respondents in more developed regions believe that “We are not doing enough” (0.268) compared to others (0.192). Conversely, fewer respondents in more developed regions think that “We are doing too much” (0.226 vs. 0.383). If we looked at less developed regions, we observe a complete different pictures, with a lower share of respondents in less developed regions believing that “We are not doing enough” (0.139 vs. 0.263), and significantly higher proportion of respondents thinking that “We are doing too much” (0.412 vs. 0.277). On average, Transition regions reports a higher level of discontent compared to more developed and less developed regions in the three type of indicators displayed.

Table 3 examines differences in green discontent between capital and non-capital regions. The overall green discontent index is significantly lower in capital regions (0.447) than in non-capital regions (0.554). The perception that “We are not doing enough” and “We are doing too much” are both lower in capital regions compared to the reference category.

**Table 3.** Results two-sample T-test with equal variances: Green discontent by capital regions

Variables	Nr. Observations		Mean		Diff.	St. Err.	P-value
	Capital	Non-capital	Capital	Non-capital			
Green discontent (overall)	27	214	0.447	0.554	0.11	0.037	0.004
We are not doing enough	27	214	0.166	0.229	0.06	0.024	0.009
We are doing too much	27	214	0.281	0.326	0.05	0.030	0.142

*Source: Own elaboration.*

From the analysis in this section, we conclude that:

- More developed regions exhibit lower overall green discontent, with fewer respondents believing “We are doing too much” and more believing “We are not doing enough”.
- Transition regions show slightly higher discontent overall, with significant differences in perceptions of inadequate climate action.
- Less developed regions do not differ significantly in overall green discontent but have fewer respondents believing “We are not doing enough” and more thinking “We are doing too much”.
- Capital regions exhibit lower overall green discontent compared to non-capital regions, with fewer respondents believing that climate action is insufficient.

The analysis also suggests that regions more exposed to climate change events may have slightly higher discontent levels. These findings highlight variations in public perception of climate policies across different regional categories, emphasizing the need for tailored policy responses that address specific regional concerns and levels of climate exposure.

## **5. Policy recommendations: towards place-based climate justice**

Climate policies need to be designed with territorial specificities in mind, as the effects of ecological transition vary considerably from one region to another. Adopting a one-size-fits-all approach tends to overlook disparities in climate vulnerability, socio-economic resilience and governance capacity. To ensure that these policies are implemented equitably and effectively, it is important for decision-makers to be guided by the principles of place-based environmental justice. This approach rests on three fundamental pillars: territorial equity, the involvement of local stakeholders and the adaptation of policies to specific territorial contexts. This will enable them to design place-based climate policies that will have a decisive impact.

### **5.1. Background to the concept of territorial environmental justice**

Territorial environmental justice extends the broader concept of environmental justice, which aims for a fair distribution of the environmental impacts, costs, and benefits of ecological transition (Faulques et al., 2022). While traditional environmental justice primarily addresses socio-economic and racial inequalities in access to natural resources and a healthy environment (Sovacool et al., 2019), territorial environmental justice emphasizes spatial disparities, i.e., differences between regions regarding environmental vulnerability, adaptive capacity, and transition opportunities.

Recent debates on ecological transition reveal that the design and implementation of climate policies can either reinforce or alleviate territorial inequalities (Markkanen & Anger-Kraavi, 2019). Some regions benefit from significant investments in renewable energy and infrastructure upgrades, while others, especially those in industrial decline or rural areas, face high costs with no clear return in terms of economic development (Vona, 2023). To address these spatial inequalities, territorial environmental justice is based on three key dimensions: distributive justice, procedural justice, and recognition justice.

Distributive justice concerns equity in the distribution of environmental benefits and burdens across different regions (Schlosberg, 2007). In the context of climate policies, this involves ensuring that mitigation efforts, such as carbon taxes or industrial restrictions, as well as adaptation efforts, like flood protection and funding for resilient infrastructure, do not disproportionately impact certain regions, particularly those more vulnerable to climate change and with limited economic resources (Kaswan, 2020).

Some regions face increasing environmental threats, such as coastal flooding or prolonged drought, without sufficient means of adaptation (IPCC, 2023). Funding for renewable energy development or energy renovations is often concentrated in the most economically dynamic areas, resulting in widening territorial inequalities (Sovacool et al., 2021). Access to green infrastructure, such as decarbonized public transport and sustainable development projects, is also highly unequal, favoring metropolises over rural and post-industrial regions (Vona, 2023). A concrete example is the coal-mining regions of Central Europe, which face a double disadvantage: on one hand, they are impacted by the closure of mines and thermal power plants due to the EU's decarbonization targets; on the other hand, they often lack viable economic alternatives to compensate for job losses (Rodríguez-Pose & Bartalucci, 2024).

Procedural justice focuses on decision-making processes and the involvement of local actors in the development and implementation of climate policies (Bell & Carrick, 2017). Effective climate governance must ensure that local communities, businesses, and civil society have mechanisms to express their concerns and influence decisions (Schlosberg & Collins, 2014). Governments must



organize consultations before adopting regulations that affect specific territories. For example, protests against the construction of wind farms in France have often intensified due to a lack of dialogue between the state and local authorities (Bourdin & Torre, 2023). In some areas, empirical and traditional knowledge of natural resource management can enhance the effectiveness of adaptation policies. Additionally, citizens' assemblies on climate, such as those established in the UK and France, have demonstrated the importance of directly involving the population in defining environmental priorities (Smith & Mayer, 2018). The absence of procedural justice can provoke territorial tensions and reinforce feelings of marginalization. A notable example is the Gilets Jaunes movement, which emerged from a policy developed without consulting the social groups most affected, particularly residents of peri-urban and rural areas who heavily rely on cars (Bourdin & Torre, 2023).

Recognition justice aims to incorporate the historical, economic, and cultural specifics of regions into climate policy design. Some areas have industrial and economic trajectories deeply rooted in high carbon footprint sectors, such as mining or petrochemicals, which may generate resistance to ecological transitions if perceived as detrimental to economic stability (Weber, 2020).

Acknowledging these economic and social particularities and adapting policies accordingly is essential to avoid backlash. Regions most affected by the ecological transition must receive support through compensation and economic conversion mechanisms, such as the European Union's Just Transition Funds, which aim to assist fossil fuel-dependent territories in diversifying their economies (Vona, 2023). Transparent communication regarding the objectives and benefits of the transition is also critical to prevent misunderstandings and local resistance. Studies indicate that lack of information and the perception of imposed policies are major factors of contestation (Rodríguez-Pose & Bartalucci, 2024). The agricultural sector in Europe exemplifies this need. Certain measures aimed at reducing the carbon footprint of agriculture, such as cutting nitrogen fertilizers or imposing restrictions on intensive livestock farming, have provoked strong reactions in several countries, where farmers have organized major demonstrations against regulations perceived as overly restrictive and threatening to their livelihoods (Finger et al., 2024). These tensions reveal that environmental policies disconnected from local realities can foster significant social and political backlash.

## **5.2. Definition and characteristics of spatially sensitive climate policies**

Spatially sensitive climate policies refer to climate action strategies that consider the diversity of territorial realities to ensure implementation tailored to local specifics. Unlike one-size-fits-all approaches that apply the same measures across the entire territory, these policies recognize that climate change impacts, adaptation capacities, and the effects of transition measures vary significantly based on geographical, economic, and institutional contexts.

A spatially sensitive climate policy is founded on several key principles: adapting measures to local conditions, engaging territorial stakeholders in decision-making, differentiating support based on regional vulnerabilities, and accounting for territorial inequalities to prevent their exacerbation. These principles aim to ensure both the environmental effectiveness and social acceptability of the implemented policies.

To implement climate policies that are both fair and effective, it is essential to adopt a territorial planning strategy that ensures adaptation to local conditions while maintaining policy coherence on a larger scale. The first key step is to map climatic and socio-economic vulnerabilities to establish precise territorial diagnoses that identify regions requiring particular support. This spatially differentiated assessment enables political decision-makers to target resources and interventions

where they are most needed, thus reducing the risk of exacerbating territorial inequalities. Secondly, it is necessary to differentiate adaptation and mitigation measures according to territorial specificities, to ensure that local strategies align with the economic and environmental realities of each region. Capacity-building for local governments is another crucial element, as it provides them with the technical and financial resources to effectively implement appropriate climate policies. Many regions, particularly those experiencing economic decline or institutional fragility, lack the means to manage the transition without targeted support. Finally, a multi-level governance approach is essential to ensure coordination between the European, national, regional, and local levels. This avoids policy fragmentation and conflicting regulations while promoting integrated strategies that balance top-down directives with bottom-up territorial needs.

The development of climate policies that consider specific territorial features relies on four main dimensions (Table 4): (i) the variability of climate impacts across regions, (ii) differences in economic and institutional capacities, (iii) the differentiated effects of ecological transition measures, and (iv) the importance of local acceptability.

**Table 4.** Dimensions of place-sensitive climate policies

Dimension	Definition	Examples of Application
Variability of Climate Impacts	Recognition of regional disparities in climate risks and adaptation of measures accordingly.	Developing regional climate risk maps to allocate adaptation resources proportionally; establishing targeted flood protection in coastal cities and drought management programs in agricultural regions.
Differences in Economic and Institutional Capacities	Consideration of disparities in economic development, infrastructure, and governance in the implementation of climate policies.	Allocating financial and technical resources based on territorial needs; reinforcing local governance capacities in less developed areas to ensure effective climate adaptation strategies.
Differentiated Effects of Transition Measures	Assessment of the unequal impacts of climate measures across territories and implementation of compensatory mechanisms.	Designing flexible carbon taxation policies that consider regional economic structures; supporting industrial diversification in regions reliant on high-carbon sectors to prevent economic decline.
Local Acceptability and Stakeholder Participation	Integration of local populations and stakeholders in the design and implementation of climate policies.	Implementing territorial climate forums to involve local communities in decision-making; establishing regional just transition funds to ensure no territory is left behind in climate action efforts.

*Source: Own elaboration.*

Firstly, exposure to climate risks varies by region due to the geophysical, economic, and ecological characteristics of the territories. Coastal regions are particularly vulnerable to sea-level rise and erosion, while arid and agricultural areas are more susceptible to drought and heatwaves. Similarly, some urban areas experience an urban heat island effect, which exacerbates summer heatwaves. A

spatially sensitive climate policy addresses this diversity by tailoring mitigation and adaptation measures to the specific risks of each region. This may include reinforced coastal protection for threatened coastal areas, the development of resilient agricultural techniques for drought-prone rural areas, or the adaptation of urban infrastructure to mitigate the impact of heatwaves.

Secondly, the capacity to adapt and implement climate policies varies considerably from region to region, depending on their level of economic development, infrastructure, and institutional robustness. Regions with strong human capital and diversified economies are better positioned to integrate green transition strategies, while those experiencing industrial decline or economic fragility may face significant challenges in implementing such measures. A climate-sensitive policy considers these differences by varying levels of support and funding according to each region's ability to manage the transition. For example, specific aid can be granted to regions undergoing industrial conversion to attract new green investment, while technical support mechanisms can help local authorities build their expertise in environmental policies.

Thirdly, climate policies, while aimed at reducing greenhouse gas emissions and building resilience to environmental risks, can have uneven effects on territories depending on their economic structure and dependence on fossil fuels. Some measures, such as carbon taxation or the closure of polluting industries, may disproportionately impact certain regions, particularly those reliant on high-emission activities. Areas where private car use is essential, especially in rural and suburban regions with inadequate public transport, are particularly affected by fuel tax increases. Similarly, regions where heavy industry is a major employment sector can be severely impacted by overly stringent environmental regulations if they are not accompanied by measures to support reconversion. A differentiated approach to climate policies can anticipate these disparities and propose compensatory mechanisms to avoid social and economic fractures. This could involve transition funds to help workers in affected sectors retrain, investments in alternative solutions to reduce dependence on fossil fuels, or adjustments to regulations based on the territorial context.

Fourthly, climate policies that neglect local specificities and are perceived as imposed “from above” may face strong social opposition. The acceptability of measures largely depends on their perceived fairness and effectiveness at the local level. If a population feels it is bearing a cost disproportionate to the benefits received, it will be more inclined to reject such policies, as illustrated by protest movements such as the Gilets Jaunes in France, which opposed an increase in fuel taxes without viable alternatives. A spatially sensitive approach to climate policies seeks to strengthen local buy-in by actively integrating stakeholders into decision-making processes. This involves consulting local authorities, engaging economic and social players, and establishing citizen consultation mechanisms to co-construct transition strategies. For example, citizens' assemblies on climate can be organized to define measures tailored to local realities, and compensation schemes can be designed to ensure that vulnerable populations do not suffer disproportionately from the effects of the implemented policies.

## 6. Future avenues of research

The study of green discontent and its spatial dimensions remains a developing field with numerous opportunities for further research. Given the complex nature of this phenomenon, future research should aim to refine the theoretical foundations, develop robust methodological approaches for measurement, and explore the implications for policymaking at various spatial scales. This section outlines several key research directions that could deepen our understanding of green discontent and its interactions with climate policies.

A first step is the development of a comprehensive theoretical framework defining green discontent and its spatial variability. While this document conceptualizes green discontent as a spectrum ranging from dissatisfaction with insufficient climate action to opposition to restrictive climate policies, further research is needed to refine this framework by integrating insights from environmental justice, political geography, and social psychology. Additionally, identifying the key drivers of green discontent—whether economic, political, cultural, or geographical—will be essential to understanding its root causes and manifestations. One promising avenue is to explore how the relationships between climate change vulnerability and regional economic structures influence public attitudes toward climate policies.

From a methodological perspective, future research should focus on developing quantitative indicators to measure green discontent at various spatial scales. This would involve constructing an index that captures variations in green discontent across regions, incorporating factors such as exposure to climate risks, socio-economic inequalities, employment dependence on carbon-intensive industries, and public attitudes toward environmental policies. A combination of geospatial analysis, survey data, and sentiment analysis from social media or media discourse could provide a robust empirical basis for mapping green discontent across different territories.

Another avenue of research lies on studying the drivers of this discontent whether it can be directly linked to the impacts of climate policies or explained by territorial characteristics. Economic and demographic indicators, such as employment patterns in carbon-intensive industries, income levels, and rural-urban divides can be used to assess the extent to which geography matters. These structural factors could help contextualize regional variations in green discontent by linking dissatisfaction with either policy inaction or policy overreach to broader socio-economic conditions. Data on the employment structure of regions, for example, could be helpful in distinguishing whether resistance to climate policies is driven by economic dependency on fossil fuels or by ideological opposition. Similarly, incorporating socio-demographic variables from Eurostat, such as age distribution, education levels, and population density, could provide further granularity in understanding which segments of the population are most likely to exhibit WANE or WDTM sentiments.

While most studies on climate attitudes have relied on survey data at the national or individual level, future research should adopt a spatially disaggregated approach to examine variations in green discontent within and between regions. For instance, conducting regional case studies would provide a deeper understanding of how green discontent is shaped by local economic and environmental conditions. Comparative studies across different geographical contexts—urban versus rural areas, industrialized versus post-industrial regions, and coastal versus inland territories—could highlight the spatial dynamics of climate-related protests and their intersection with broader socio-economic and political trends.

Beyond quantitative analyses, qualitative research is also important for capturing the lived experiences and narratives of green discontent. Ethnographic studies of climate-related protests

and social conflicts could provide valuable insights into how grievances are articulated and mobilized at the local level. Discourse analysis of political parties, climate-skeptic movements, and green advocacy groups could shed light on the framing of green discontent in public debates. Moreover, media and social media analysis could help identify the dominant narratives surrounding green discontent, in order to examine how it is portrayed and amplified in different contexts. Conducting interviews with key stakeholders, including policymakers, environmental activists, and representatives of affected communities, would further enrich our understanding of the social and political dimensions of green discontent.

Another promising direction involves analyzing how different levels of governance—European, national, regional, and local—shape green discontent. The distribution of climate policy responsibilities across governance levels often creates tensions, with some regions perceiving climate measures as imposed from above without sufficient local consultation. Understanding how multi-level governance structures influence public perceptions of climate policies and whether decentralized or participatory approaches can mitigate green discontent is an important area for future inquiry. This could be examined through comparative studies of climate policy implementation across different political-administrative frameworks.

Finally, future research should explore the impact of climate policies on green discontent over time. Longitudinal studies tracking changes in public attitudes after the implementation of major climate policies—such as carbon taxes, energy transition measures, and green subsidies—could provide valuable insights into the effectiveness of different policy approaches in addressing discontent. Investigating whether territorially differentiated climate policies—those that consider regional socio-economic disparities—can mitigate opposition and enhance public acceptance would be especially relevant for designing more equitable and effective climate strategies.

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