Capable
CLIMATE POLICY ACCEPTABILITY ECONOMIC FRAMEWORK

CAPABLE POLICY BRIEF / 4°

NOVEMBER 2025

A Systematic Literature Review of Determinants of Climate Policy Support

The research presented in this policy brief synthesizes evidence on what drives or constrains public acceptance of climate policies. Drawing on a systematic review of academic studies published between 1998 and 2024, the analysis uses a combination of machine learning tools and expert evaluation to identify the most influential factors across policy instruments, contexts, and time periods. The resulting evidence base allows a structured comparison of findings that have so far been scattered across disciplines and case studies.

I. Savin, U. Turmunkh, M. Callaghan, S. Pianta, M. Sanford

Table of Contents

Highlights

The research presented in this policy brief synthesizes evidence on what drives or constrains public acceptance of climate policies. Drawing on a systematic review of academic studies published between 1998 and 2024, the analysis uses a combination of machine learning tools and expert evaluation to identify the most influential factors across policy instruments, contexts, and time periods. The resulting evidence base allows a structured comparison of findings that have so far been scattered across disciplines and case studies.

Across the reviewed literature, perceived fairness and effectiveness stand out as the strongest and most consistent determinants of support for climate policies. Citizens are more likely to accept measures they view as fair in burden sharing and effective in delivering climate benefits, while socio-demographic factors such as age or income play a secondary role.

Revenue recycling - using or returning carbon-related revenues - significantly raises public support for climate policies. In particular, support increases when revenues are earmarked for visible environmental projects, investments in green technologies, or compensation to low-income households, rather than when they enter the general budget.

Trust in institutions and the quality of policy communication are potentially powerful levers of acceptance. Clear information on policy goals, benefits, and fairness framing can shift perceptions even when costs are visible, while low institutional trust amplifies resistance. Evidence coverage is highly uneven across regions. The majority of studies focus on North America and Northern and Western Europe, while Southern and Eastern Europe and the Global South remain under-researched. This gap limits the transferability of insights and underscores the need for more diverse case studies.

Since previous reviews, the evidence base on public acceptance has expanded in policy scope - covering carbon pricing, transport, and energy policies - but remains weak in ex-post evaluation. Few studies examine how support evolves after implementation or in response to policy performance.

Policy design should reflect these findings by differentiating between actors: combining strict regulation and incentives for large emitters with choice-enabling and benefit-focused instruments for households. Building visible fairness and trust into design and communication is key to durable acceptance.

Effective and clear communication, along with a concerted effort to depoliticize climate policies by emphasizing the ways in which these policies can also benefit energy and national security, public health, and long-term household and national financial outcomes, will also help build coalitions of durable support across constituencies.

Key Messages

- The systematic review conducted within the CAPABLE project shows that public acceptance of climate policies is shaped less by individual characteristics, i.e., who people are, than by how policies are designed and communicated. Factors such as perceived fairness, transparency, and trust in institutions consistently explain support across instruments and contexts.
- Fairness and effectiveness are twin pillars of acceptance. Policies perceived as distributing costs and benefits fairly, and as achieving tangible environmental outcomes, are far more likely to gain and maintain public support.
- Design details matter. Support for carbon pricing and similar measures increases when revenues are recycled transparently - especially when directed toward environmental projects or visible community benefits. Generic budget transfers have limited impact on perceived fairness.
- Communication and trust can change acceptance trajectories. Evidence shows that transparent messaging about objectives, expected benefits, and distributional impacts can increase willingness to support climate action even under cost salience. In contrast, low trust in government or perceived policy opacity reinforces opposition.
- Climate policy has become increasingly politicised in recent years, and support for climate policies commonly correlates with individual political ideology. There is evidence to suggest that communicating the benefits of climate policies can overcome this barrier and build support across political boundaries.
- Knowledge gaps in geographical scope still persist. The evidence base is heavily concentrated in North America and Northern and Western Europe. The limited volume of studies for Southern and Eastern Europe, as well as the Global South, restricts the transferability of insights and highlights the need for more diverse research contexts.
- Finally, policy strategies should be actor-specific. Effective design combines direct regulation for high-emission sectors with enabling and choice-based instruments for households. Such differentiated approaches are more likely to secure both fairness perceptions and behavioral engagement.

Mapping the Evidence Base

Understanding what drives or constrains public acceptance of climate policies is central to effective climate action. Over the past two decades, research on this question has broadened from a narrow focus on single instruments to a multi-disciplinary field examining how people judge the fairness, effectiveness, and trustworthiness of policies.

There are four reviews that provide some foundation for the present study of public acceptance of climate-mitigation policies, though they differ markedly in scope and approach. The review by Drews and van den Bergh (2015) was the only fully systematic effort, covering 95 studies across a wide range of instruments and identifying social-psychological, policy-design, and contextual determinants of support. The three subsequent reviews—Maestre-Andrés et al. (2019), Bergquist et al. (2022), and Valencia et al. (2024)—used more targeted search strategies and focused narrowly on carbon-pricing policies. Maestre-Andrés et al. examined perceived fairness and trust in revenue use, Bergquist et al. conducted a meta-analysis of 15 determinants of carbon-tax acceptance, and Valencia et al. synthesized evidence on how different revenue-recycling options affect support for carbon pricing. Together, these studies offer valuable but partial updates to the literature, highlighting the need for a new, broader systematic review such as that undertaken in the CAPABLE project.

The CAPABLE project builds on this work and extends the analysis through a systematic review of peer-reviewed publications from the late 1990s through 2024, providing the most detailed and comprehensive evidence base to date.

Our review maps determinants of acceptance across instruments (pricing and non-pricing) and countries. The review targeted all peer-reviewed studies providing empirical evidence on determinants of public attitudes toward climate-mitigation policies. Inclusion was limited to research using household- or individual-level survey or experimental data.

A four-part search query, designed to identify studies on (1) public attitudes and preferences, (2) climate-mitigation policies, (3) specific policy instruments, and (4) individual-level data collection, was deployed in Scopus across relevant social-science, behavioral, and environmental subject areas. The search retrieved 1,938 records. Subsequently, duplicates were removed, abstracts screened, and full texts assessed for eligibility. Our screening procedure followed a machine-learning–assisted approach described by Callaghan et al. (2020), which used the ML-based classifier ranked titles and abstracts by semantic similarity to our inclusion criteria, after which human reviewers confirmed eligibility and coded each included study's data sample, methods used, and determinants examined (e.g., fairness, effectiveness, cost salience, trust,

norms, information). Figure 1 presents this screening and inclusion pathway—from initial search to final sample—showing how our database was assembled and checked at each step. This resulted in a final sample of 379 studies synthesized in the CAPABLE systematic review.

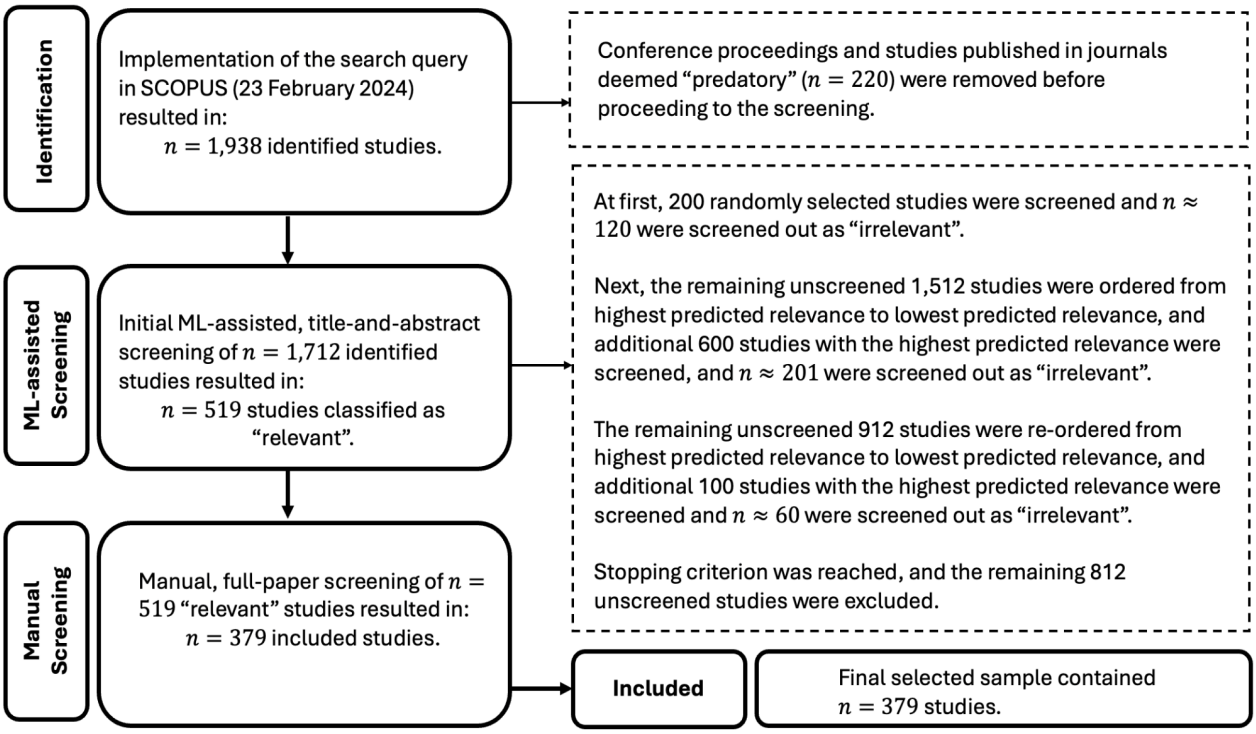


Figure 1. Screening and inclusion of studies in the final sample

The resulting sample of studies makes it possible to describe how the field has evolved. Figure 2 documents a marked acceleration in publications after 2015, coinciding with the Paris Agreement, wider deployment of carbon pricing, and heightened attention to social and behavioral dimensions of the transition. The disciplinary footprint has diversified: most studies appear in interdisciplinary and environmental social-science journals such as Energy Policy, Climatic Change, Global Environmental Change, and Journal of Environmental Psychology, with economics outlets contributing but remaining comparatively fewer. Designs also vary—surveys and survey experiments dominate, complemented by qualitative research. This growth in volume provides a far stronger empirical base than was available to earlier reviews and permits a more granular, policy-relevant synthesis.

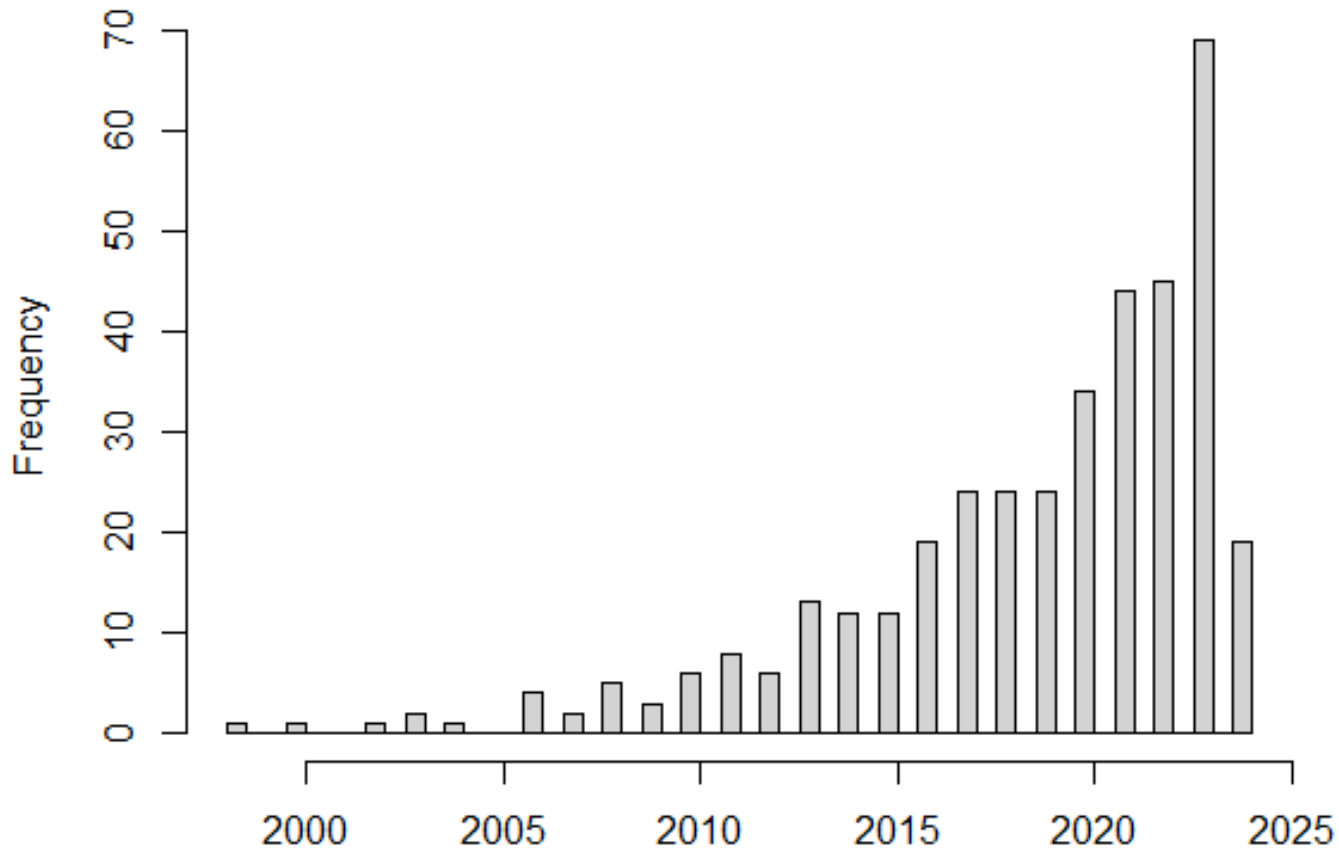


Figure 2. Growth in published studies on climate-policy acceptance since 2000

Descriptive Landscape of the Literature

The CAPABLE review covers 379 studies published between 1998 and 2024, offering the most extensive mapping of research on the determinants of public acceptance of climate-mitigation policies to date.

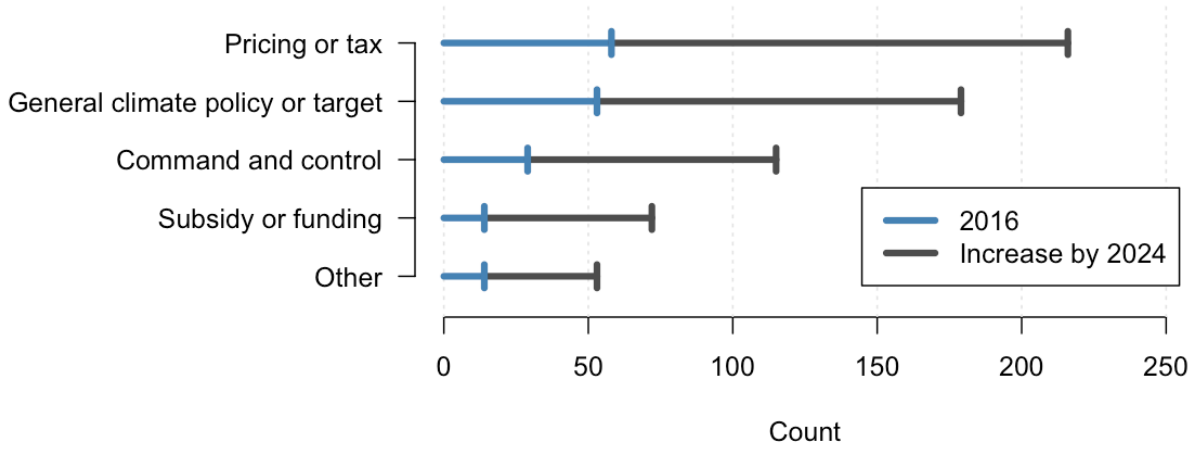
Figure 2 shows that the number of publications grew sharply after 2015, with 69 studies appearing in 2023 alone—more than six times the output of the early 2000s. This acceleration reflects the wider attention to behavioral and political feasibility following the Paris Agreement. It is worth noting that over 90% of the policy analyses are ex-ante policy evaluations (i.e., future or hypothetical policies) and not ex-post (i.e., real policies implemented). Thematic analysis of titles, abstracts, and keywords using structural topic modeling (Roberts et al., 2014; Savin, 2023) identifies twelve recurring research themes and traces their evolution over time. Early work concentrated on framing and communication, valuation studies, and vulnerability to climate change. Since 2016, attention has shifted toward trust in government, political ideology, risk perception, and carbon pricing, signaling a move from describing attitudes to explaining the mechanisms that shape them.

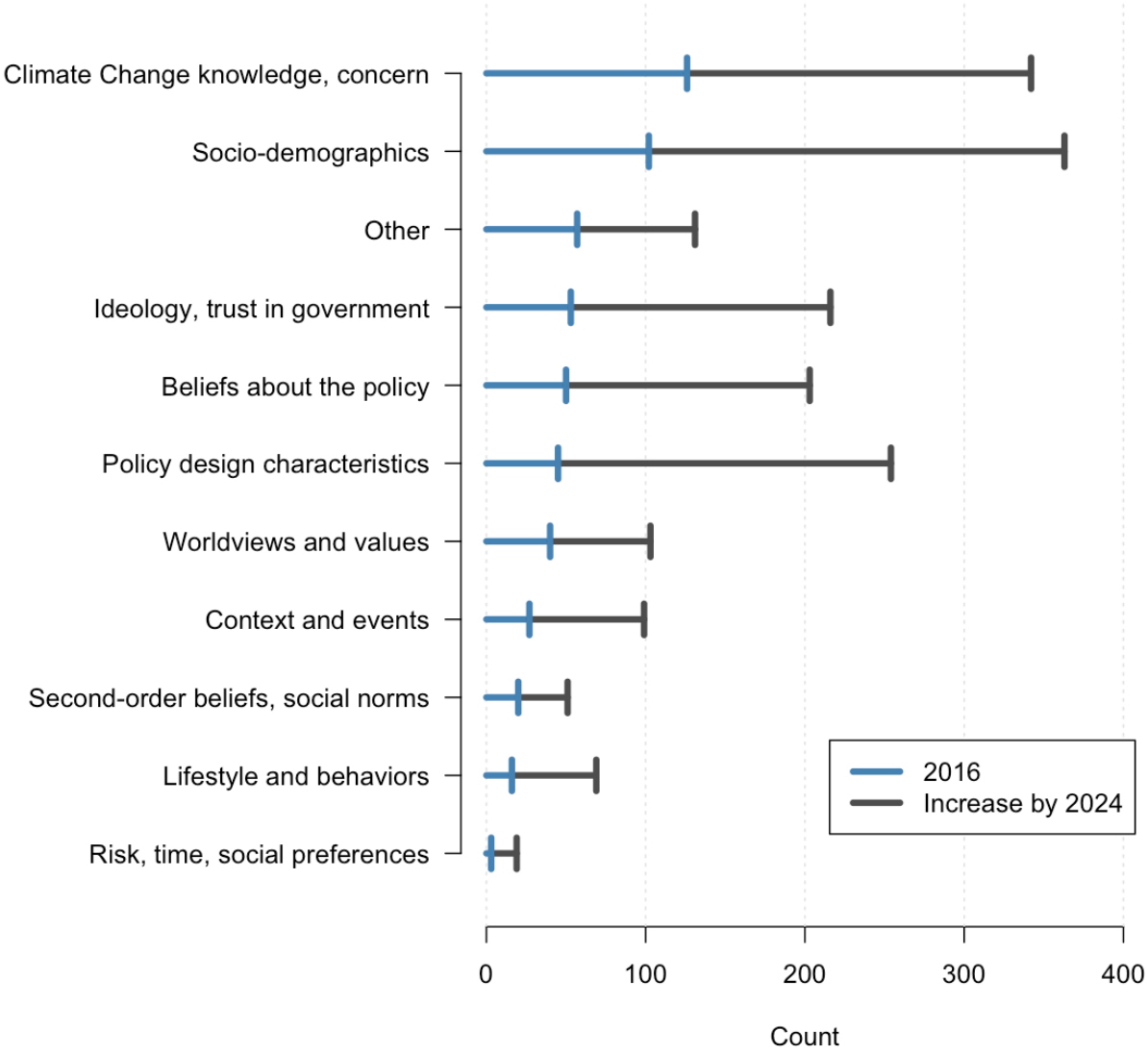
A similar evolution appears in determinants. The centre of gravity moves from climate concern and socio-demographic characteristics as the main determinants to ideology, beliefs, and policy-design features. In other words, the literature becomes more policy-oriented, focusing on individual characteristics and levers that policymakers can plausibly affect (such as stringency, framing, salience, fairness, compensation).

Methodologically, the balance shifts toward stronger identification. Before 2016 (N=96), studies using causal designs accounted for 44.8% and strictly correlational studies for 55.2%. In the full sample (N=379), causal designs rise to 48.3%, with correlational work falling to 51.7%.

This tilt toward causal inference—via experiments, quasi-experiments, or designs leveraging exogenous variation—aligns with the field's move from documenting associations to testing policy-relevant mechanisms and effects.

The topic-modeling analysis further shows that the most cited research now centers on risk perception (T10), energy transition (T6), and carbon taxation (T3), while studies on carbon sequestration and vulnerability to climate change have become less prominent. This pattern demonstrates a shift toward policy-oriented and decision-relevant evidence.


Pricing or tax
General climate policy or target
Command and control
Subsidy or funding
Other
2016
Increase by 2024
0
50
100
150
200
250
Count


Climate Change knowledge, concern
Socio-demographics
Other
Ideology, trust in government
Beliefs about the policy
Policy design characteristics
Worldviews and values
Context and events
Second-order beliefs, social norms
Lifestyle and behaviors
Risk, time, social preferences
2016
Increase by 2024
0
100
200
300
400
Count

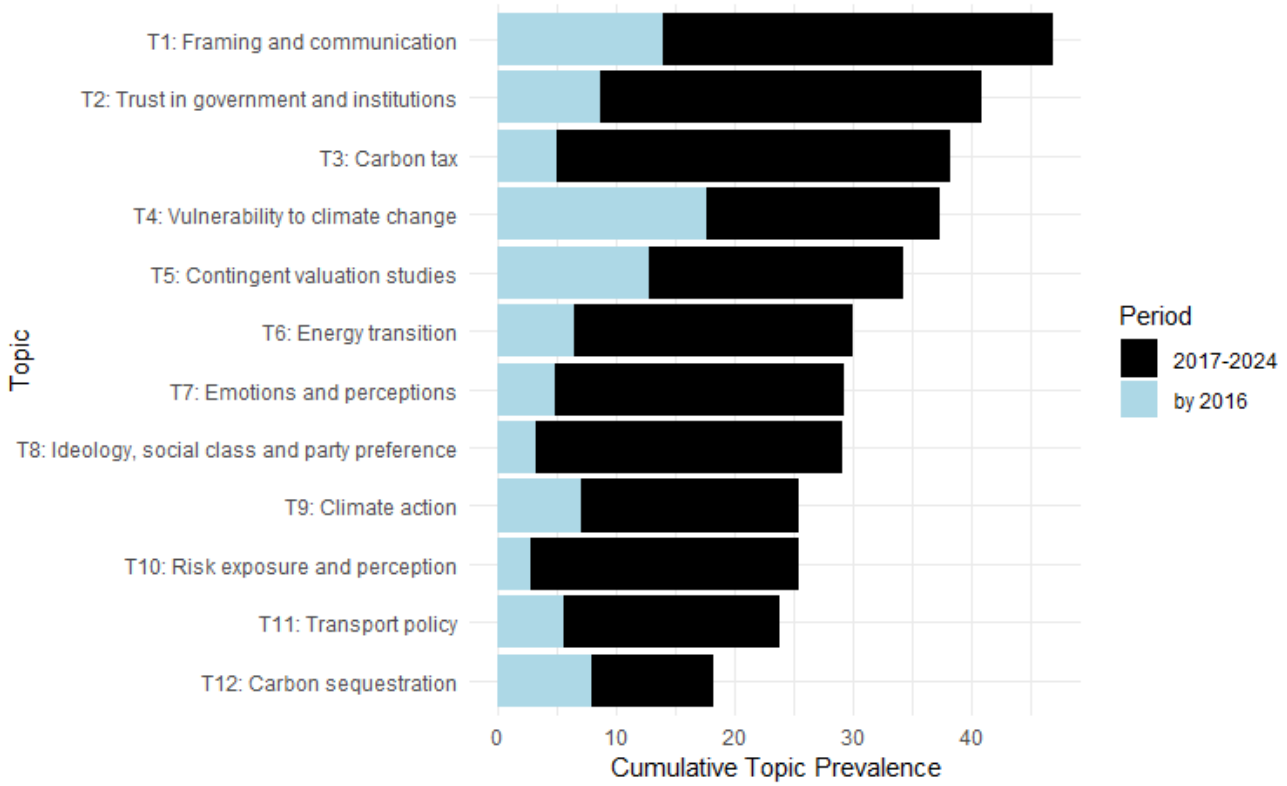
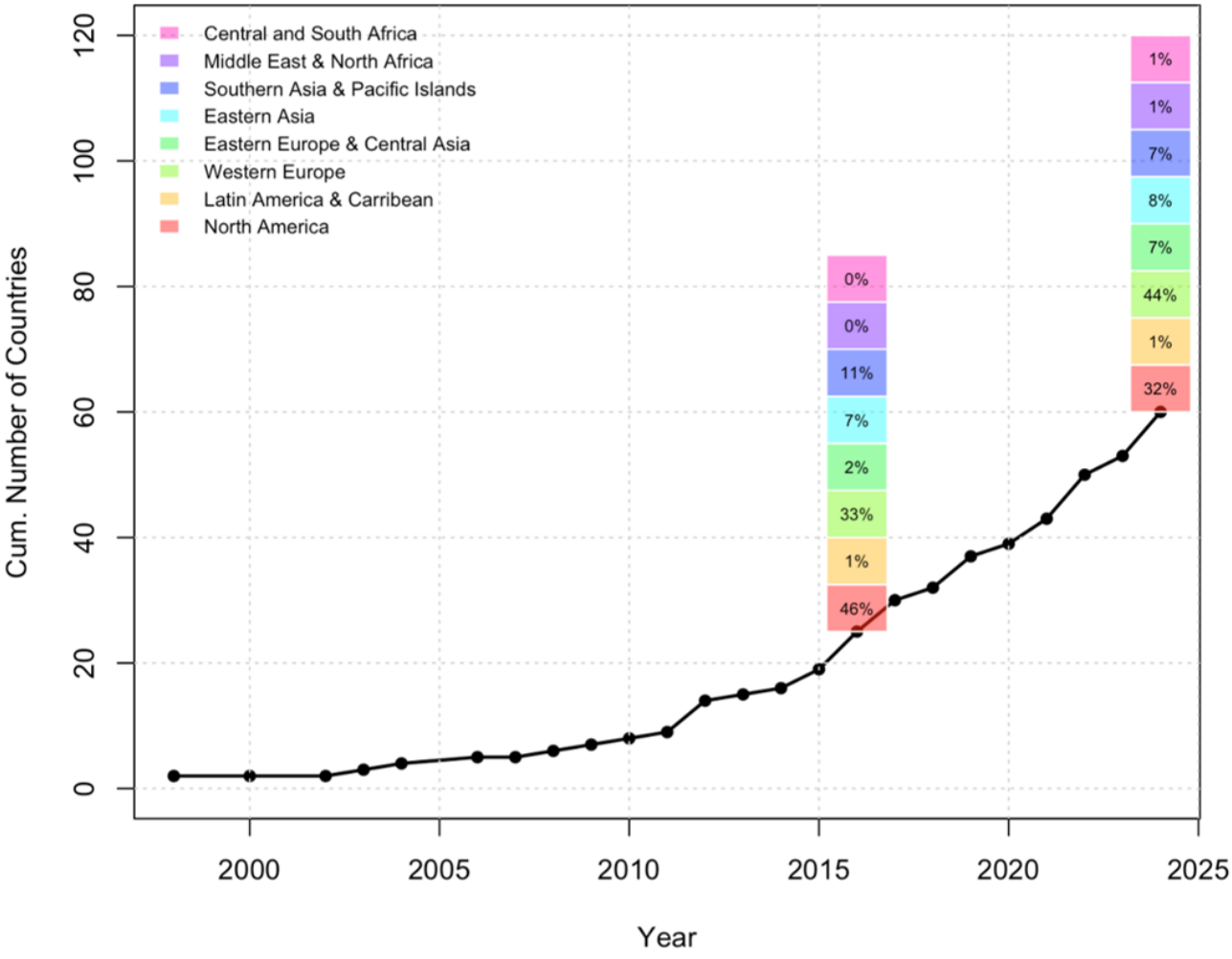
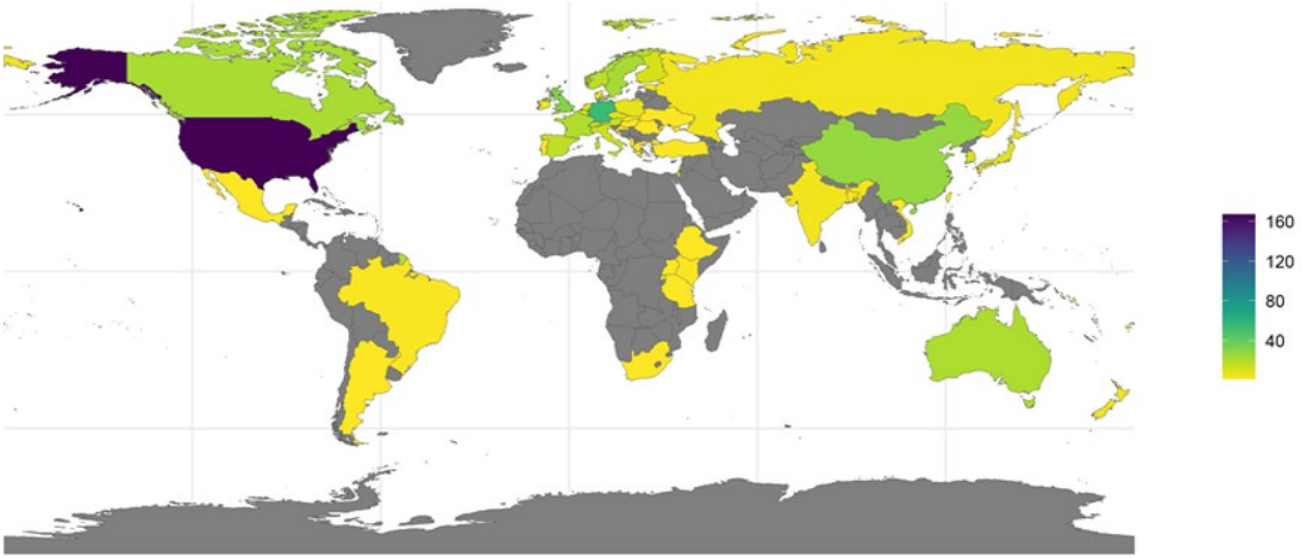


Figure 3. Dynamics of studies, policy types, determinants and topics over time. On the opposite page, the top chart shows the number of studies devoted to a particular policy type or determinant, while the bottom chart shows the change in topic prevalence before and after 2016, as a study may cover more than one policy type or determinant.

Geographical coverage has expanded substantially. The number of countries studied has increased from 42 in the literature before 2016 to 106 in the current sample, broadening empirical foundations for cross-country comparison. Nevertheless, the distribution of data collection remains uneven.

Figure 4 illustrates that the United States, Germany, and the United Kingdom dominate the sample, followed by China, Sweden, Canada, and Australia. Many countries in Africa, South-East Asia, and Latin America remain under-represented, though research has started to extend beyond OECD countries. The left panel of Figure 2 shows that studies on North America have declined in relative terms, while those on Western and Eastern Europe have grown. The topic distribution by country reveals distinct national profiles: communication-focused studies prevail in the United States and Australia; research in France centers on trust and ideology; Switzerland leads in work on carbon taxation; and Canada contributes heavily to transport-policy studies. This figure also shows which topics are relatively under-investigated in different regions. For example, it appears that topics on energy transition and risk perception received little attention among respondents from Sweden, while in the USA, contingent valuation studies are not so common. Note further that in many countries, notably in Germany, Canada, and Spain, studies on framing and communication are rather infrequent.





	USA	DEU	GBR	CHN	SWE	CAN	AUS	FRA	NOR	CHE	ESP
T1: Framing and communication	23,4	2,4	18	4	4,6	1,2	20,5	2,8	4,2	10,1	1,1
T2: Trust in government and institutions	10,4	16,3	17,9	11,7	17,9	16	12,7	26,3	19,5	17	10,2
T3: Carbon tax	6,4	11,6	5,4	9,5	16,3	15,7	7,4	6,6	9,3	24,7	10,7
T4: Vulnerability to climate change	13,2	11,2	8,3	4,3	9,9	2,9	11	8,9	15,6	8,4	8,3
T5: Contingent valuation studies	4	8,4	14,7	11,6	4,5	8,7	14,2	2,5	1,9	1,5	10,4
T6: Energy transition	7,9	3,5	6,4	7	0,4	10,4	1,3	2,3	2,5	5,9	1,8
T7: Emotions and perceptions	8,8	8,9	6,9	12,6	7,2	2,1	10,9	8,1	13,8	0,4	4,7
T8: Ideology, social class and party preference	5	16,5	5,6	7,2	19,4	3,1	3,2	28,6	13,2	5,7	36
T9: Climate action	6,2	8,8	4,9	8,1	9,4	5,3	1,9	0,6	0,9	13,5	0,7
T10: Risk exposure and perception	6,4	5,5	7,8	5,9	0,7	11,5	0,3	10,3	12,4	3,9	12,7
T11: Transport policy	5	4,8	3,2	3,4	9,2	22,1	8,6	2,3	1,5	8,6	2,3
T12: Carbon sequestration	3,3	2,1	0,9	14,6	0,5	1,1	7,9	0,7	5	0,2	1,3

Figure 4. Country coverage in data collection. The chart on the opposite page shows dynamics over time. The heatmap shows the entire sample of studies across countries. The table chart shows the percentages of topics addressed in the ten most studied countries.

Overall, the evidence base is becoming more diverse in geography, topics, and methods, marking a significant step toward a global understanding of climate-policy acceptance. Yet large regional and topical gaps remain, motivating the analysis in the next section on the determinants of public acceptance and their implications for effective and equitable climate policy.

Synthesis of Key Insights and Policy Recommendations

The present systematic literature review provides the most comprehensive synthesis to date of the empirical evidence on what drives public support for climate mitigation policies. Across the evidence base we collected, three key factors appear to collectively shape public acceptance far more strongly than demographics or other fixed characteristics. These factors are people's beliefs about climate change, their perceptions of the fairness and effectiveness of policy design, and their level of trust in institutions.

Let us start with the people's beliefs about climate change. The most widely documented driver of policy support is citizens' knowledge of, and concern about, climate change itself. Across countries and policy types, a vast majority of studies report that individuals who recognize climate change as real, human-driven, and harmful are also more likely to support mitigation measures. This relationship holds after controlling for socio-demographic and political-psychological variables such as gender, education, income, environmental values, and ideology. In other words, the more people perceive climate change as a serious and human-caused threat, the greater their willingness to endorse ambitious climate policies. However, it is important to note that awareness and concern are almost always not enough to ensure support.

Complementing these correlational findings, a growing number of causal studies—relying on randomized information treatments or exogenous information shocks—demonstrate that providing accurate information about climate causes, consequences, or solutions can significantly increase public support for mitigation policies. This effect appears even among politically conservative citizens, though it is often smaller in magnitude. Such evidence highlights that policy communication emphasizing the severity of the climate challenge and the concrete benefits of mitigation can meaningfully shape attitudes.

A subset of studies also links citizens' sense of personal or moral responsibility to higher support for policy action. Individuals who see climate change as an ethical issue or a matter of intergenerational fairness tend to express stronger approval of collective measures.

These findings collectively underscore that strengthening factual knowledge and moral engagement with the problem is one of the most reliable paths to building durable policy acceptance. Effective communication—especially messages that connect scientific facts with shared values—emerges across the literature as a central recommendation for policy makers.

The second core insight is that citizens judge climate policies primarily through the lens of their perceived effectiveness and fairness. Studies consistently show that people are more supportive of measures they believe will actually reduce emissions and do so in a socially just way. Perceptions of effectiveness are especially influential for citizens who are less ideologically aligned with climate action or who consider the issue less salient. Economic co-benefits also matter: policies that promise local jobs, cleaner air, or energy savings tend to attract higher levels of support. In contexts where health impacts of pollution are salient, perceived health co-benefits are particularly strong predictors of acceptance.

Policies seen as fair—those that avoid disproportionate burdens on vulnerable groups or make wealthier households and corporations pay a larger share—are markedly more popular.

At the same time, citizens remain sensitive to perceived costs. Numerous studies highlight that acceptance depends not only on cost magnitude but also on how costs are distributed.

Causal evidence confirms that communicating such fairness features can increase support even for cost-imposing instruments like carbon taxes.

These patterns link closely to the design features of policies. Citizens tend to support regulatory mandates or financial disincentives that target industries - fuel-efficiency standards, renewable-energy requirements, or fossil-fuel taxes - because such policies are viewed as effective and directed at major emitters. For households, in contrast, positive incentives such as subsidies and low-interest loans are preferred over coercive rules. Policies offering universal access to incentives - rather than restricting eligibility to specific income groups - are considered fairer and therefore more acceptable.

When it comes to pricing instruments, earmarking and revenue recycling play a decisive role. Support rises sharply when revenues are directed toward visible environmental or social uses - such as investments in clean infrastructure, public transport, or compensation for low-income households - rather than transferred to the general budget.

Among the various recycling options tested in experimental and survey studies, green spending consistently yields the highest gains in public support, followed by uniform per-capita rebates. By contrast, selective redistribution targeted only at specific groups tends to attract less approval, as it is often perceived as politically motivated or exclusionary.

The third core insight points to systematic differences in public preferences for voluntary versus coercive instruments. Citizens tend to favor positive incentives for households but endorse more coercive approaches toward industries. This asymmetry likely reflects the widespread belief that businesses are the main emitters and thus bear greater responsibility for mitigation. At the same time, several studies demonstrate that support for more stringent measures—including taxes and mandates—can be increased when these are combined with visible compensatory elements or packaged within broader "green deal" frameworks.

These findings have direct implications for effective policy packaging. When policies perceived as costly are accompanied by enabling measures—such as subsidies for low-carbon alternatives, investments in public transport, or clear communication about benefits—they achieve higher legitimacy and durability.

The literature therefore recommends pairing pricing or regulatory tools with visible benefits that enhance perceptions of fairness and collective gain. Similarly, stable and transparent information about how revenues are used can prevent skepticism and strengthen long-term support.

Our findings further suggest that experiences with well-functioning existing policies can shape acceptance of new measures. Evidence shows that the introduction of "soft" instruments—like voluntary subsidies—can make subsequent, more stringent measures (e.g., carbon taxes) more acceptable when citizens recognize them as part of a coherent and fair policy sequence. Conversely, policy reversals or unclear communication tend to erode trust and make future reforms more difficult.

The fourth and final core insight refers to how contextual conditions, such as trust in institutions, political polarization, and exposure to extreme events, influence acceptance patterns. Several studies highlight that institutional trust amplifies the effects of perceived fairness: citizens are more willing to accept temporary costs when they believe public authorities will use revenues responsibly and deliver promised outcomes. Low trust, by contrast, magnifies skepticism about effectiveness and fairness alike.

Political context matters as well. Ideological polarization can weaken support for climate policies, particularly in countries where climate action is framed as a partisan issue. Experimental studies show that non-climate framings - such as emphasizing health, technological progress, or economic competitiveness - can partially depolarize the debate and expand support across political lines. Additionally, experimental studies testing the effect of informing participants about the costs of climate change, as well as the benefits (effectiveness) of climate mitigation policies, tend to find a positive effect on policy support regardless of participants' political ideology. This suggests that depolarisation is possible through widespread and well-designed information campaigns about climate change and climate mitigation.

Finally, research examining responses to external shocks—economic crises, pandemics, and extreme weather events—suggests that such events do not necessarily diminish support for

mitigation. On the contrary, exposure to heat waves, floods, or fires often increases concern about climate risks and willingness to back stronger policies. In some cases, positive evaluations of government crisis management have even strengthened trust and acceptance of climate action (see e.g. Drews et al. 2022).

Taken together, our review shows that fairness, effectiveness, and trust remain the cornerstones of climate-policy acceptance. Policies are most likely to gain and sustain support when they are clearly communicated, visibly fair in cost sharing, demonstrably effective in emission reduction, and embedded within a trustworthy institutional framework.

Conclusions

The CAPABLE systematic literature review provides the most comprehensive and up-to-date evidence base on public acceptance of climate-mitigation policies. By synthesizing 379 empirical studies, it shows that the expansion of research over the past decade has deepened understanding of how perceptions of fairness, effectiveness, and trust shape public support. Acceptance is influenced less by *who* people are than by *how* policies are designed, communicated, and implemented. The growing body of evidence provides policymakers with actionable lessons for building public consent around ambitious climate strategies.

At the same time, the review highlights significant gaps. The majority of studies still examine hypothetical or ex-ante policy scenarios rather than real-world implementation. Evidence remains heavily concentrated in Europe and North America, with only limited coverage of the Global South, where local institutional and socio-economic contexts may lead to different acceptance dynamics. Broader empirical coverage and more systematic ex-post evaluations are therefore needed to strengthen the global evidence base.

For policymakers, the key message is clear. Policies that are transparent, perceived as fair, and demonstrably effective are far more likely to gain and sustain public support. Communicating policy benefits, recycling revenues in visible and equitable ways, and maintaining trust through stable, accountable institutions are central to achieving durable climate action. Ensuring that future climate policies reflect these lessons will be critical to advancing both environmental effectiveness and social legitimacy in the transition to net zero.

References

Bergquist, M., Nilsson, A., Harring, N., & Jagers, S. C. (2022). Meta-analyses of fifteen determinants of public opinion about climate change taxes and laws. Nature Climate Change, 12(3), 235-240.

Callaghan, M. W., & Müller-Hansen, F. (2020). Statistical stopping criteria for automated screening in systematic reviews. Systematic Reviews, 9, 1-14.

Drews, S., & Van den Bergh, J. C. (2016). What explains public support for climate policies? A review of empirical and experimental studies. Climate policy, 16(7), 855-876.

Drews S., Savin I., J. van den Bergh and S. Villamayor (2022). Climate concern and policy acceptance before and after COVID-19, Ecological Economics 199:107507

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

Roberts, M. E., Stewart, B. M., Tingley, D., Lucas, C., Leder-Luis, J., Gadarian, S. K., Albertson, B., & Rand, D. G. (2014). Structural topic models for open-ended survey responses. American Journal of Political Science, 58(4), 1064–1082.

Savin I. (2023). Evolution and recombination of topics in Technological Forecasting and Social Change, Technological Forecasting and Social Change 194: 122723

Valencia, F. M. , Mohren, C., Ramakrishnan, A. et al. Public support for carbon pricing policies and revenue recycling options: a systematic review and meta-analysis of the survey literature. npj Clim. Action 3, 74 (2024). https://doi.org/10.1038/s44168-024-00153-x

PB Collection

This is the first Policy Brief of a collection of six high-level summaries of the main results of the CAPABLE research project. It summarizes the actionable policy recommendations developed within CAPABLE on key research topics for policymakers, practitioners, business and consumers' representatives.

Disclaimer

The project CAPABLE has received funding from the European Union's Horizon Europe research and innovation program under grant agreement No 101056891. This policy brief reflects the authors' views, and the European Commission is not responsible for any use that may be made of the information this document contains