

# Supplementary Information for:

From shocks to actions: A four-decade subnational climate policy analysis in China

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## Supplementary Note S1: Climate Policy Classification and Embedding Construction

This supplementary note describes the two core components: (1) the Retrieval-Augmented Generation (RAG) system used to classify whether a given policy document has potential climate-change relevance, and (2) the transformer-based semantic embedding procedure used to construct the Policy Response Index (PRI).

### S1.1 Climate Policy Classification via RAG and Prompt Learning

We classify more than four million Chinese government policy documents (1980–2024) into two categories: (i) policies that contain explicit climate policy instruments or sectoral policies that contribute indirectly via co-benefits or embedded climate-related objectives, and (ii) all other policies. Classification is conducted using a Retrieval-Augmented Generation (RAG) combined with chain-of-thought prompt learning. The procedure comprises seven stages.

First, we construct a gold-standard corpus of 1,000 policy titles with expert-annotated binary labels and split it into training dataset (80%) and evaluation (20%) dataset using a fixed random seed. Second, we embed other 1,000 labeled corpus using the `mxbai-embed-large` model and index it in an in-memory ChromaDB vector store. Each policy title is stored as a single text unit, with the ground-truth label recorded as document-level metadata. Third, we conducted a systematic benchmark to jointly select the classification model and the optimal prompting strategy. Three open-weight large language models were evaluated: Mistral-Small-24B, Qwen-2.5-14B, and Qwen-2.5-32B. We first conducted rigorous prompt engineering on the training dataset, starting from zero-shot, one-shot, few-shot, few-shot with chain-of-thought (CoT), and RAG-augmented few-shot. Fourth, Each model was tested under five prompting configurations with prompt engineering on the evaluation dataset. Fifth, We then compare those prompt performance in different model on evaluation dataset. According to the Table S1 and Panel (a) in the Figure ??, the RAG-augmented few-shot prompt attains the highest performance across all models in all metrics (accuracy, precision, recall, and F1). Sixth, we applied the RAG-augmented few-shot prompt into three models, conducted a stability test in which the entire evaluation set was classified 20 times under each model and prompt combination. According to the Panel (b) in the Figure ??, the Qwen-2.5-14B and Qwen-2.5-32B has the highest stability, and the Mistral-Small-24B is not stable espically on the the RAG-augmented few-shot. Lastly, based on these results, we select **Qwen-2.5-32B with RAG-augmented few-shot prompting** as the production configuration for classifying the full corpus of  $\approx 4.5$  million policy documents.

In addition, the prompt is reproduced in English translation in Section S5. The design of this prompt follows a five-step chain-of-thought (CoT) reasoning protocol grounded in the IPCC AR6 taxonomy (the complete prompt is reproduced in English translation in Section S5). In the first step, the model evaluates whether the policy’s stated objective directly targets climate mitigation or adaptation, cross-referencing an enumeration of 50 IPCC mitigation sub-categories (e.g., wind energy, CCS, urban electrification) and 23 adaptation sub-categories (e.g., coastal defence, disaster risk management, climate services). In the second step, the model assesses whether the policy, designed for other purposes, may produce positive or negative climate externalities,

that captures indirect governance channels. The third step requires the model to cross-reference its assessment against the full IPCC AR6 taxonomy to ensure systematic coverage of both mitigation and adaptation domains. In the fourth step, the prompt introduces 25 manually annotated policy title–label pairs spanning diverse domains (e.g., fiscal regulation  $\rightarrow$  0; carbon peak action plan  $\rightarrow$  1; grassland law  $\rightarrow$  1; personnel appointment  $\rightarrow$  0) as few-shot exemplars that calibrate the model’s decision boundary. In the fifth and final step, the top-15 retrieved policy titles from the ChromaDB index are injected verbatim as contextual evidence; the model is instructed to *reference but not mechanically copy* labels from these retrieved examples. The user prompt then presents the target policy title and constrains the output to a single character (“1” or “0”) with no explanation.

## S1.2 Embedding Model Selection and Document Chunking

To construct the Policy Response Index (PRI), we embed full-text policy documents into a semantic vector space and compute cosine similarity against a central matrix of reference sentences representing each IPCC-aligned policy sub-category. For each document chunk, the cosine similarity between the chunk embedding  $\mathbf{c}$  and the reference sentence embedding  $\mathbf{r}$  is computed as:

$$\text{sim}(\mathbf{c}, \mathbf{r}) = \frac{\mathbf{c} \cdot \mathbf{r}}{\|\mathbf{c}\| \cdot \|\mathbf{r}\|} \quad (\text{S1})$$

where both vectors are  $L_2$ -normalized prior to computation.

### S1.2.1 Embedding Model

We select DeMeta (`dmeta-embedding-zh-small`) as the production embedding model. DeMeta is a compact Chinese-language sentence embedding model ( $\sim$ 400 MB) that achieves top-tier performance on the Massive Text Embedding Benchmark (MTEB) Chinese leaderboard<sup>1</sup>, offering a strong balance between embedding quality and inference speed. This trade-off is particularly important given the scale of our policy corpus ( $\approx$ 4.5 million documents) and the computational demands of large-scale embedding. Compared to larger alternatives such as Qwen-7 (`gte-qwen2-7b`, 7B parameters), DeMeta delivers substantially faster inference—approximately 30% faster than its own base variant—while maintaining competitive semantic capture for Chinese policy text. These properties make DeMeta the most practical choice for vectorising our corpus at national scale.

### S1.2.2 Document Chunking

Given the length of Chinese policy documents, each document must be segmented into chunks before embedding. We adopt a **sliding-window chunking** strategy with a **chunk length of 512 tokens** and approximately 10% overlap at sentence boundaries. This configuration balances context sufficiency against computational efficiency. A 512-token window is a widely adopted default in sentence-transformer architectures and falls comfortably within DeMeta’s maximum context length (1,024 tokens), ensuring that the model can fully attend to all input tokens

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<sup>1</sup>MTEB Leaderboard: <https://huggingface.co/spaces/mteb/leaderboard>.

without truncation. At the same time, compared to larger windows (e.g., 1,024 tokens), the 512-token setting reduces the total number of embedding operations per document while maintaining stable retrieval performance. Documents are first cleaned by removing redundant whitespace and special Unicode characters, then segmented using the sliding-window procedure. Each chunk is independently embedded and compared against the central-matrix reference sentences to produce the final PRI scores.

## Supplementary Note S2: Robustness Checks

To ensure the reliability of our baseline findings, we conduct a series of robustness checks, including alternative measures of disaster shocks, sample selection sensitivity, placebo tests, and randomization inference.

### S2.1 Disaster

#### S2.1.1 Alternative Measures of Disaster Shocks

In our baseline specification, we utilized the log-transformed count of disaster events as the primary independent variable. To verify that our results are not driven by the specific functional form of the disaster measure, we re-estimate the model using a binary dummy variable indicating the occurrence of any disaster event in a given province-year. Table S17 and Figure S3 present the results. The coefficients for the disaster dummy remain positive and statistically significant across aggregate policy response ( $\beta = 0.105, p < 0.01$ ), mitigation ( $\beta = 0.104, p < 0.01$ ), and adaptation ( $\beta = 0.111, p < 0.01$ ). This confirms that the policy response is robust to the definition of the disaster shock.

#### S2.1.2 Sample Selection and Outliers

We further test the sensitivity of our results to sample selection and potential outliers. We perform three specific tests: (1) excluding province-years with extreme disaster counts (above the 99th percentile), (2) excluding province-years with extreme policy response scores (above the 99th percentile), and (3) restricting the sample to the period 2000-2023 to ensure temporal consistency. As shown in Table S18 and Figure S4, the estimated coefficients for the disaster count variable remain stable and statistically significant across all subsamples, ranging from 0.071 to 0.079. This indicates that our findings are not driven by outlier observations or specific time periods.

#### S2.1.3 Reverse Causality Test

A potential concern in our identification strategy is reverse causality—that is, whether past policy responses influence the frequency of subsequent natural disasters (e.g., through better mitigation reducing reported disaster counts). To test this, we estimate a model where the current disaster frequency ( $Disaster_{it}$ ) is regressed on lagged policy responses ( $Policy_{i,t-1}, Policy_{i,t-2}$ ). As shown in Table S14, the coefficients for lagged policy responses are statistically insignificant and close to zero. This suggests that local policy actions do not mechanically alter the frequency of

recorded natural disasters in the short term, supporting the direction of causality from shocks to policy.

#### S2.1.4 Placebo Tests

To address concerns about potential confounding factors or pre-existing trends, we conduct a pre-treatment placebo test. We regress current policy response on future disaster shocks (leads of 1, 2, and 3 years). If the observed relationship is causal, future disasters should not predict current policy changes. Table S15 (in main text) reports these results. The coefficients for future disasters are statistically insignificant and close to zero, supporting the assumption of parallel trends and the causal interpretation of our main results.

#### S2.1.5 Randomization Inference

To assess whether our results could arise by chance, we employ a randomization inference (permutation) test. We randomly permute the disaster shock variable across provinces and years 1,000 times and re-estimate the baseline model for each permutation. Figure S5 displays the distribution of these placebo coefficients. Our true estimate ( $\hat{\beta} = 0.081$ ) lies far in the right tail of the distribution ( $p < 0.01$ ), providing strong evidence that the observed effect is not a statistical artifact.

#### S2.1.6 Varying Time Windows for Cumulative Effects

To validate the temporal persistence of disaster impacts, we vary the cumulative time window from 2 to 10 years. As reported in Table S19 and Figure S6, the estimated impact coefficient increases monotonically with the window size: from **0.202** (2-year cumulative) to **0.245** (3-year), **0.309** (5-year), and **0.360** (10-year). This pattern reinforces our “cumulative burden” hypothesis, suggesting that the policy impact of disasters accumulates and persists over long horizons rather than dissipating quickly.

#### S2.1.7 Alternative Standard Error Specifications

To ensure that our statistical inference is robust to different assumptions about the error structure, we estimate the baseline model using four different standard error specifications: (1) Province-clustered (baseline), (2) Year-clustered, (3) Driscoll-Kraay (robust to cross-sectional dependence and serial correlation), and (4) Classical (IID). As shown in Table S20 and Figure ??, the disaster coefficient remains statistically significant across all specifications. Notably, the Driscoll-Kraay standard errors yield the most conservative inference while preserving significance, suggesting that accounting for spatial and temporal dependence actually strengthens our statistical confidence.

## S2.2 Temperature

To verify the robustness of our temperature results, we conduct a comprehensive set of sensitivity analyses focusing on bin definition, temporal aggregation, sample selection, and inference methods.

### S2.2.1 Bin Definition Sensitivity

Our baseline model employs 5°C bins to capture the non-linear response to temperature. To ensure our results are not an artifact of this specific discretization, we test an alternative specification that aggregates temperature distributions into three broad bands: "Cold" (<12°C), "Moderate" (12-28°C, reference), and "Hot" (>28°C). We then estimate the effect of a 1 percentage point increase in the share of days falling into the "Hot" band. As shown in Table S21 and Figure S7, the results from this "share-based" model are consistent with our baseline bin estimates. The average marginal effect of shifting days from the moderate to the hot band is positive and statistically significant, confirming that the observed policy response is driven by the accumulation of heat stress rather than the specific choice of bin width.

### S2.2.2 Cumulative Exposure and Persistence

To test the persistence of heat-induced policy responses, we extend our analysis to cumulative exposure windows of 2, 3, 5, and 10 years. We focus on the coefficients for "hot bins" ( $\geq 28^\circ\text{C}$ ). Table S22 and Figure S9 displays the distribution of estimated coefficients across all policy dimensions for these varying windows. We find that the positive impact of extreme heat is not transient. The coefficients for the 2-year and 3-year cumulative windows remain robustly positive, indicating that heatwaves leave a "policy memory" that lasts beyond the immediate year of occurrence. While the magnitude attenuates slightly over longer horizons (5-10 years), the signal remains detectable, supporting the hypothesis of a "ratchet effect" where repeated heat exposure permanently elevates the baseline level of climate policy attention.

### S2.2.3 Randomization Inference

To assess whether our results could arise by chance, we employ a randomization inference (permutation) test. We randomly permute the temperature shock variable across provinces and years 1,000 times and re-estimate the baseline model for each permutation. Figure S10 displays the distribution of these placebo coefficients. Our true estimate ( $\beta = 0.081$ ) lies far in the right tail of the distribution ( $p < 0.01$ ), providing strong evidence that the observed effect is not a statistical artifact.

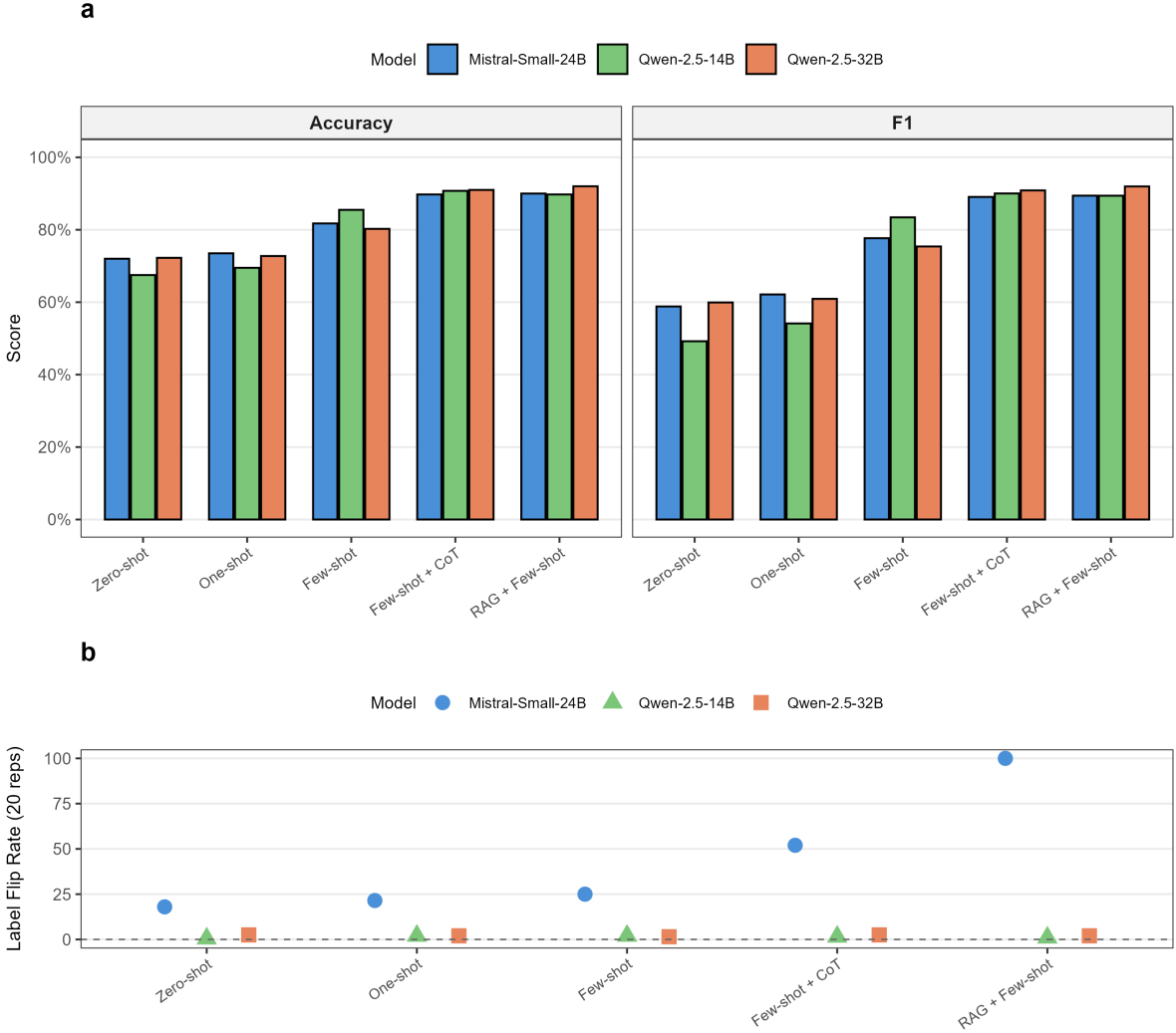
### S2.2.4 Sample Selection and Outliers

We further examine whether our results are driven by specific outliers or time periods. We re-estimate the baseline model on three subsamples: (1) the full sample (baseline); (2) a "trimmed" sample excluding province-years with extreme hot day counts (below the 5th or above the 95th percentile); and (3) a restricted sample covering only the post-2000 period (2000-2023). Table S23 and Figure S11 presents the coefficient distributions for the hot bins ( $\geq 28^\circ\text{C}$ ) across these specifications. The estimates remain remarkably stable across all subsamples. The exclusion of extreme outliers does not diminish the effect size, and the results hold for the more recent period, suggesting that the temperature-policy link is a structural feature of China's governance system rather than a result of a few anomalous years or early-period noise.

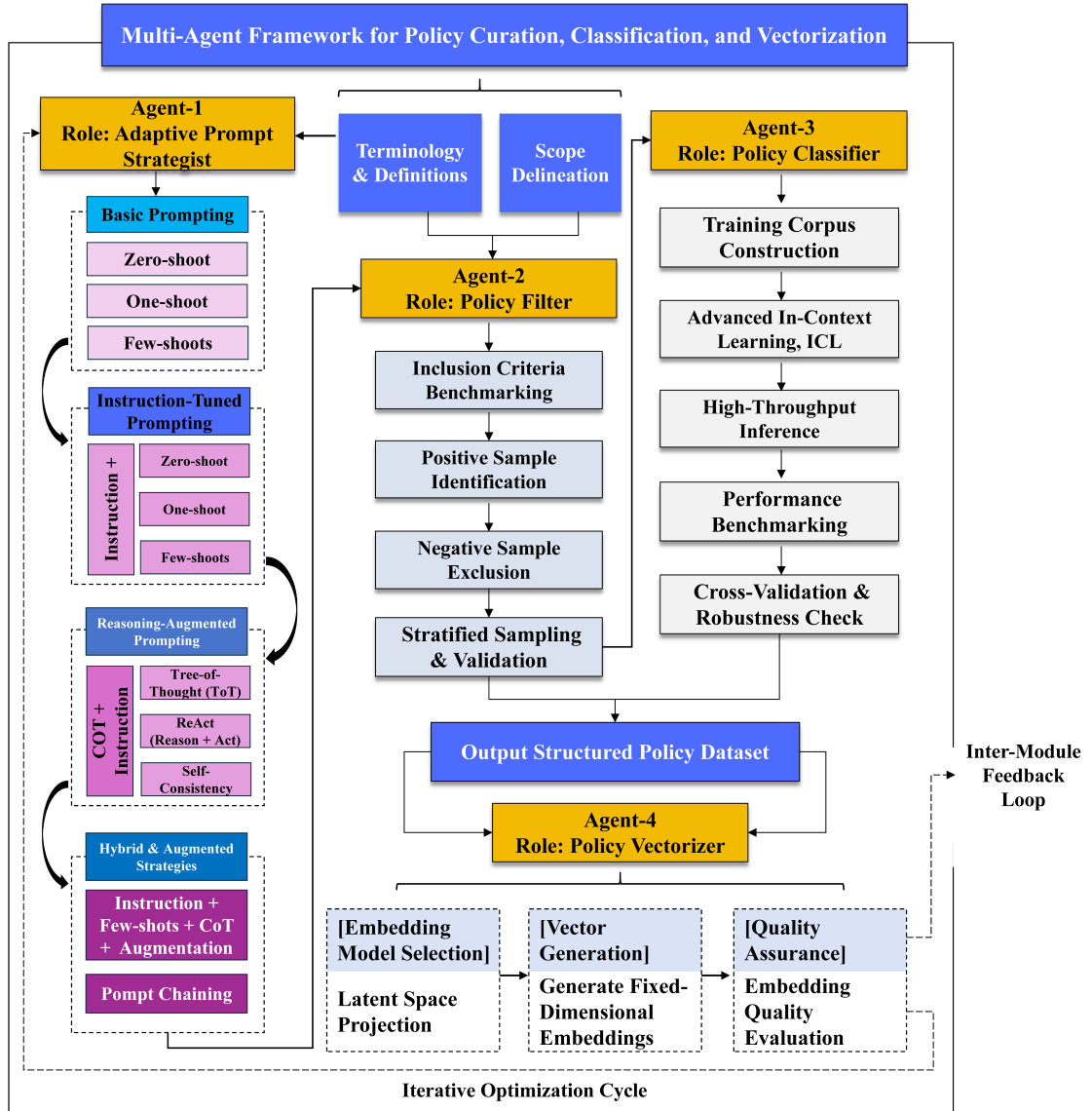
### S2.2.5 Alternative Standard Error Specifications

Finally, to ensure valid inference in the presence of potential spatial and serial correlation, we test the sensitivity of our standard errors. We compare our baseline province-clustered standard errors against four alternatives: (1) Year-clustered SEs; (2) Driscoll-Kraay standard errors with a 2-year lag; (3) Driscoll-Kraay standard errors with a 4-year lag; and (4) Classical (IID) standard errors. Table S24 and Figure S12 illustrates the coefficient estimates and significance levels for the hot bins under these different specifications. The statistical significance of the policy response to extreme heat ( $\geq 28^{\circ}\text{C}$ ) is robust to all specifications. Notably, using Driscoll-Kraay standard errors, which account for cross-sectional dependence (a likely feature of regional temperature shocks), preserves the significance of our key findings, reinforcing the causal interpretation of the results.

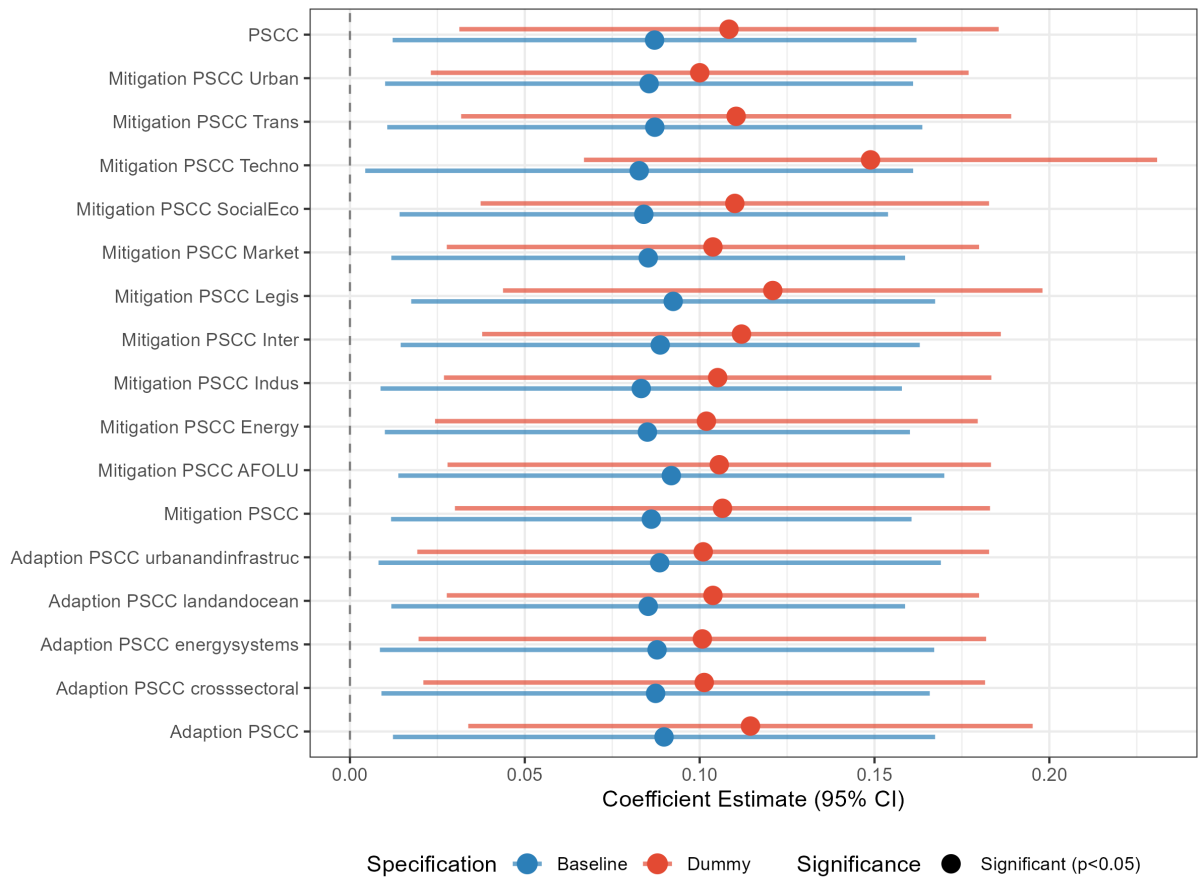
Supplementary Note S3: Supplementary Figures



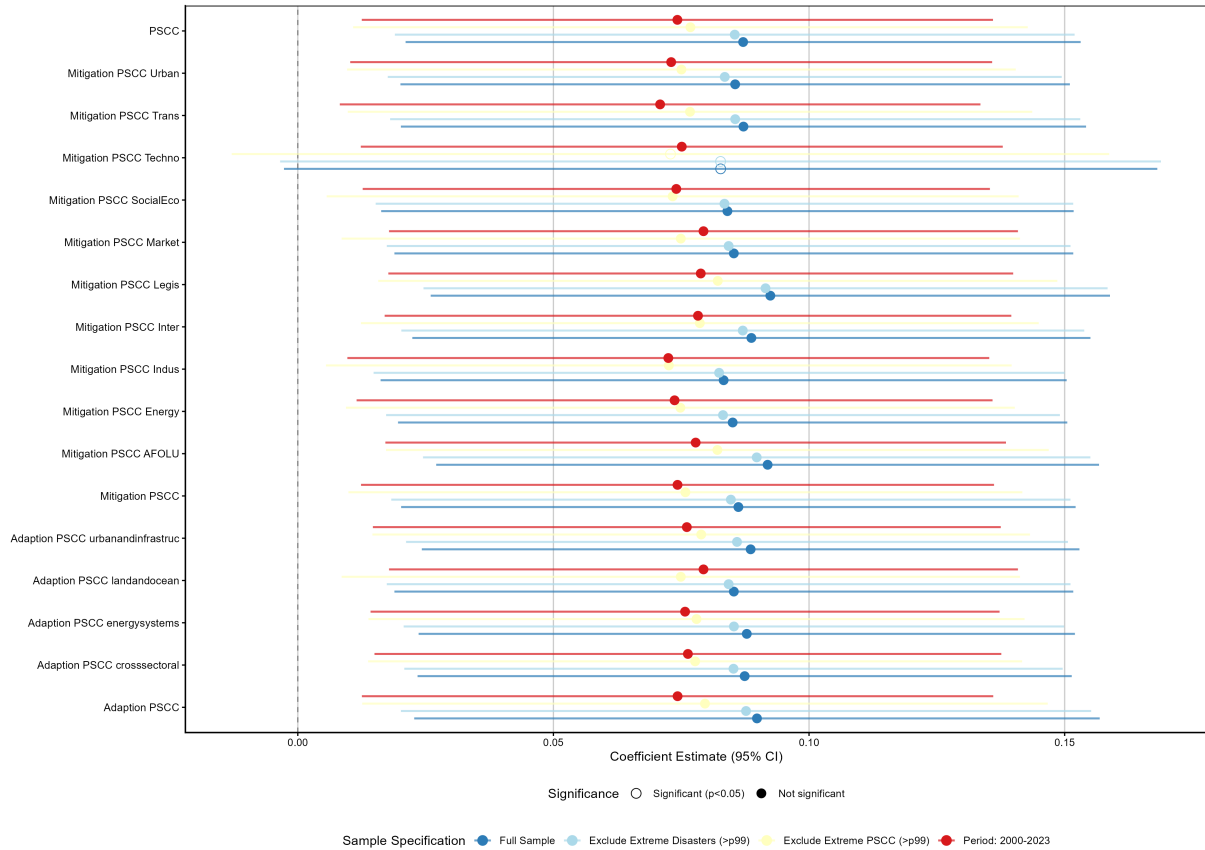
Supplementary Figure S1: Model selection benchmark for climate policy classification. **(a)** Accuracy and F1 scores for three candidate LLMs (Mistral-Small-24B, Qwen-2.5-14B, Qwen-2.5-32B) under five prompting strategies, evaluated on a 400-title held-out test set. Performance improves monotonically with prompt enrichment; Qwen-2.5-32B with RAG-augmented few-shot prompting achieves the highest F1 (0.920). **(b)** Label flip rate across 20 repeated inference runs. All model–prompt configurations exhibit 0% label flipping, confirming perfect output determinism.



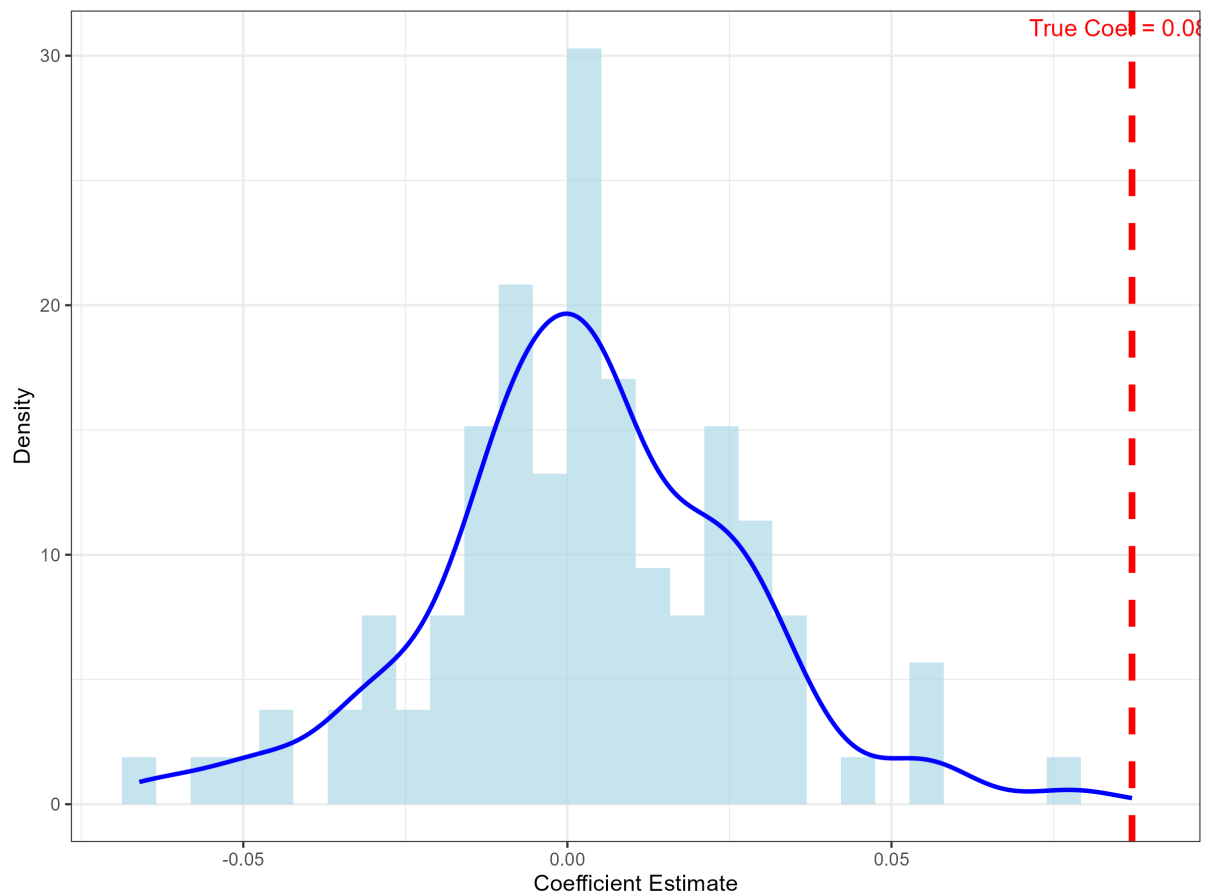
Supplementary Figure S2: Overview of the Natural Language Processing (NLP) pipeline for climate policy classification and semantic embedding. The pipeline consists of two primary modules. First, a Retrieval-Augmented Generation (RAG) classification system filters the complete subnational corpus to identify climate-relevant policies ( $y = 1$ ). To achieve this, a gold-standard expert-annotated corpus is embedded into a ChromaDB vector store. For each unlabeled document, the top- $k$  most similar labeled examples are retrieved to construct a context-rich few-shot chain-of-thought (CoT) prompt, instructing Qwen-2.5-32B to perform binary text classification. Second, for the identified climate policies, full texts are segmented via a 512-token sliding-window strategy and embedded into a semantic vector space using the DeMeta Chinese sentence embedding model. These chunk-level embeddings are then compared against an IPCC-aligned central matrix via cosine similarity to compute continuous, multi-dimensional Policy Response Index (PRI) scores.



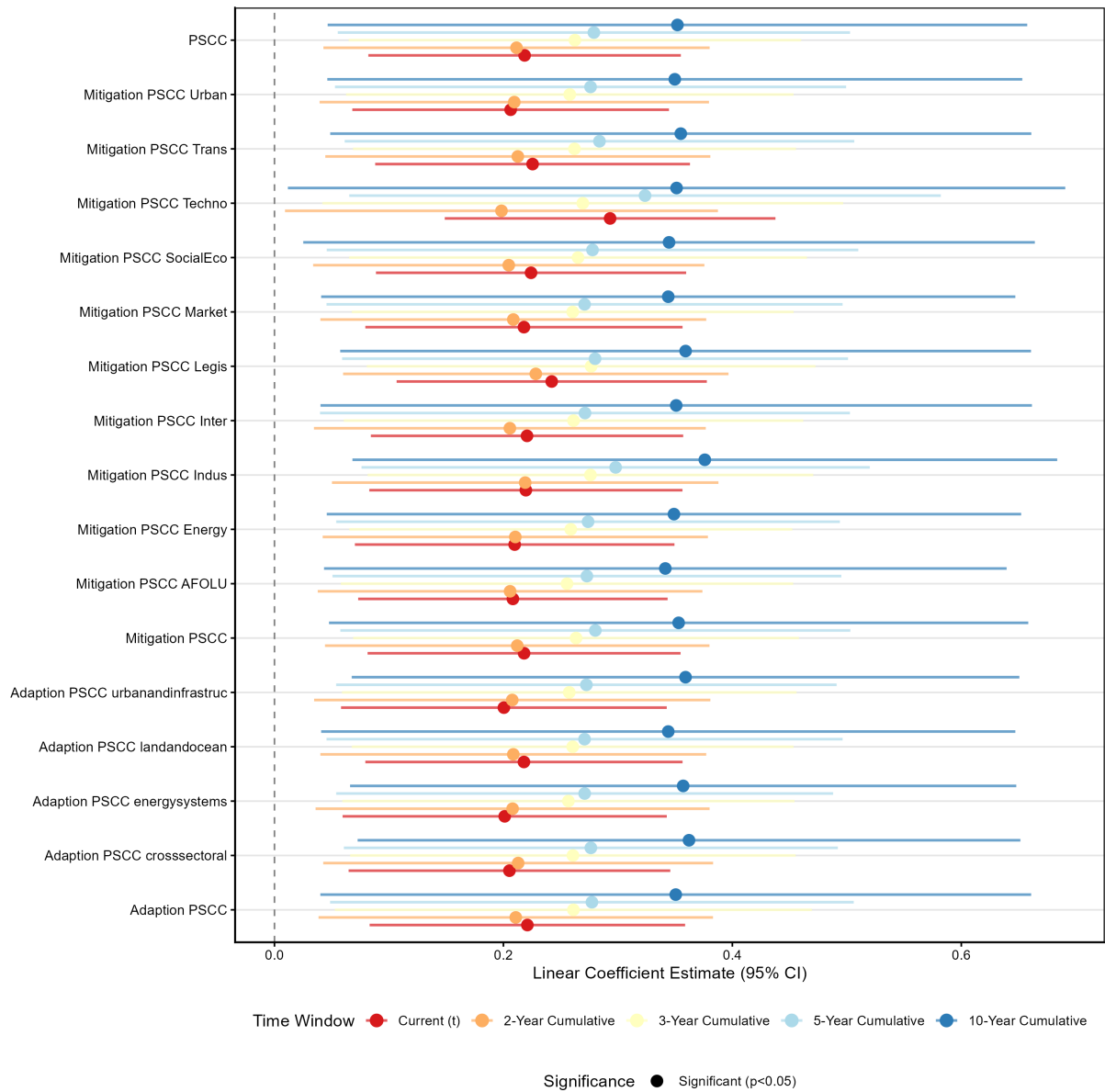
Supplementary Figure S3: **Robustness to Alternative Measures of Disaster Shocks.** Dot-and-whisker plot comparing coefficient estimates from the baseline continuous specification (log-transformed disaster count, blue) and the binary dummy specification (any disaster occurrence, red) across all 17 policy subdimensions. Filled points indicate statistical significance at the 5% level. Both specifications yield consistent positive effects, confirming that results are not driven by the functional form of the disaster measure. Error bars represent 95% confidence intervals based on Driscoll-Kraay standard errors.



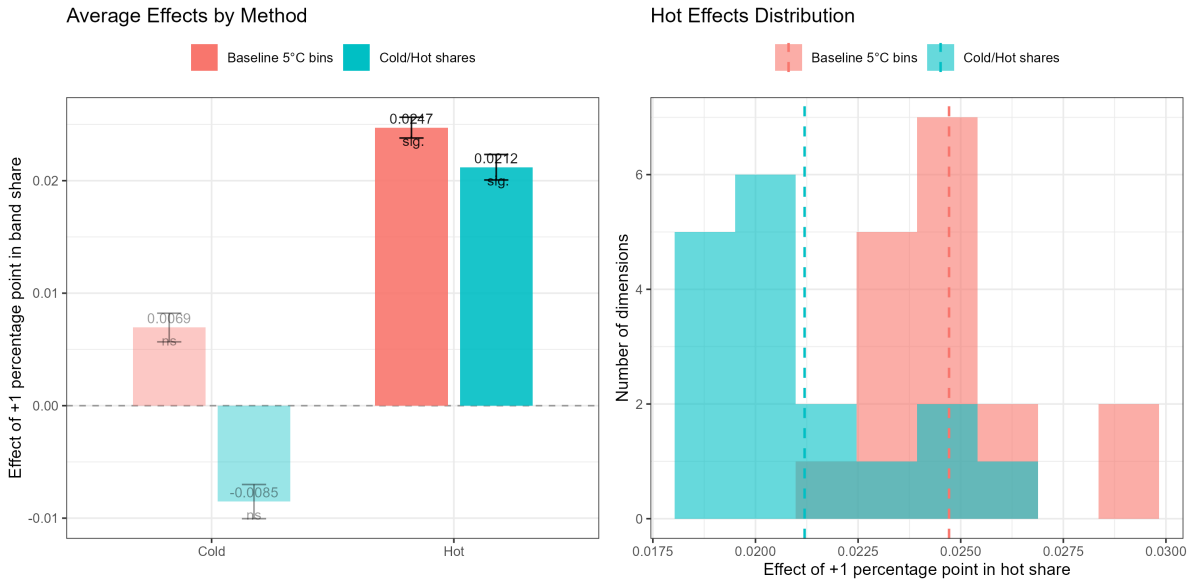
Supplementary Figure S4: **Robustness to Sample Selection and Outliers (Disaster)**. Dot-and-whisker plot showing disaster effect estimates across four sample specifications: full sample (blue), excluding extreme disaster counts above the 99th percentile (orange), excluding extreme policy response scores above the 99th percentile (yellow), and restricting to the post-2000 period (red). Filled points indicate  $p < 0.05$ ; hollow points indicate non-significance. Coefficients remain stable across all subsamples, ranging from 0.071 to 0.079, indicating that results are not driven by outlier observations or specific time periods.



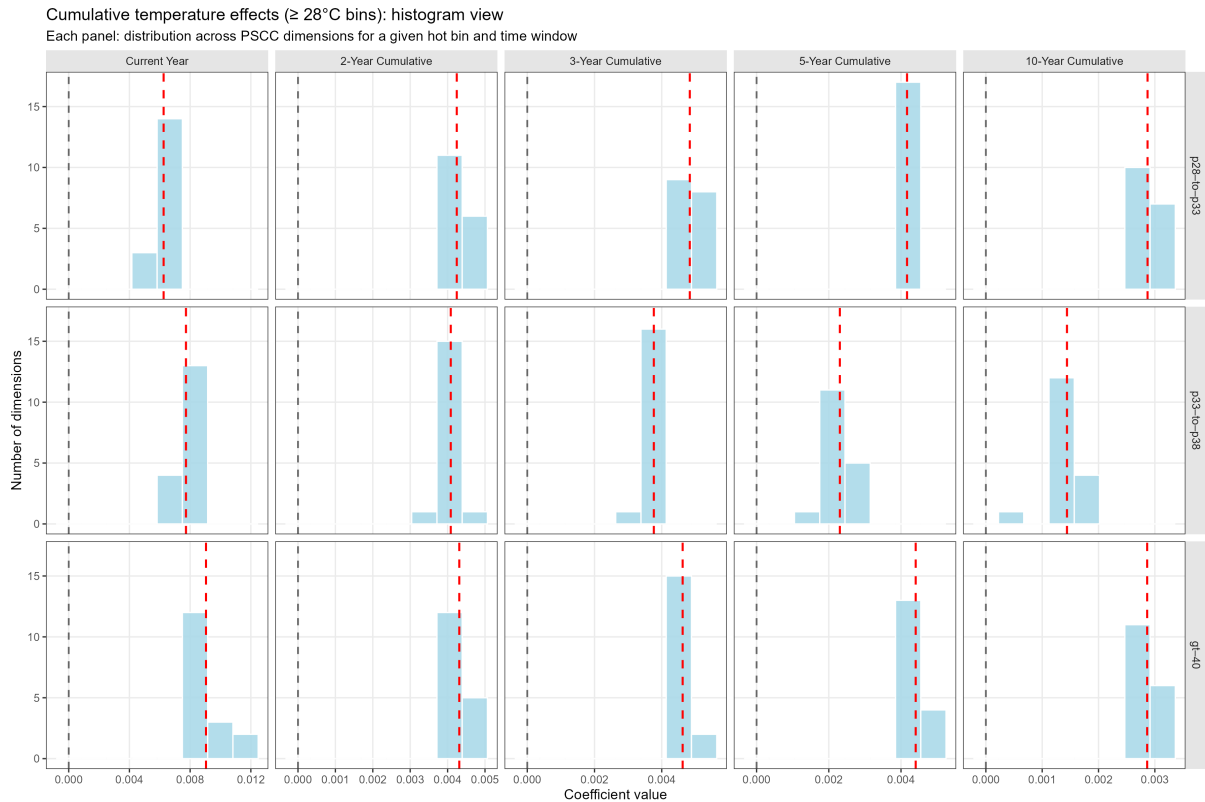
Supplementary Figure S5: **Randomization Inference for Disaster Effects.** Distribution of placebo coefficients from 1,000 permutations of the disaster shock variable. The histogram shows the density of coefficients obtained by randomly shuffling disaster counts across province-years while re-estimating the baseline model. The blue curve is a kernel density estimate. The red dashed line marks the true estimated coefficient ( $\hat{\beta} = 0.081$ ), which lies far in the right tail of the permuted distribution ( $p < 0.01$ ), providing strong evidence that the observed disaster-policy relationship is not a statistical artifact.



Supplementary Figure S6: **Robustness to Varying Cumulative Time Windows (Disaster)**. Dot-and-whisker plot of cumulative disaster effect estimates across five temporal windows: current year (red), 2-year (orange), 3-year (yellow), 5-year (light blue), and 10-year (dark blue) cumulative exposure. Coefficients increase monotonically with window length, from  $\sim 0.20$  (current year) to  $\sim 0.36$  (10-year cumulative), confirming the “cumulative burden” hypothesis. All 17 policy subdimensions are shown. Filled points indicate  $p < 0.05$ .



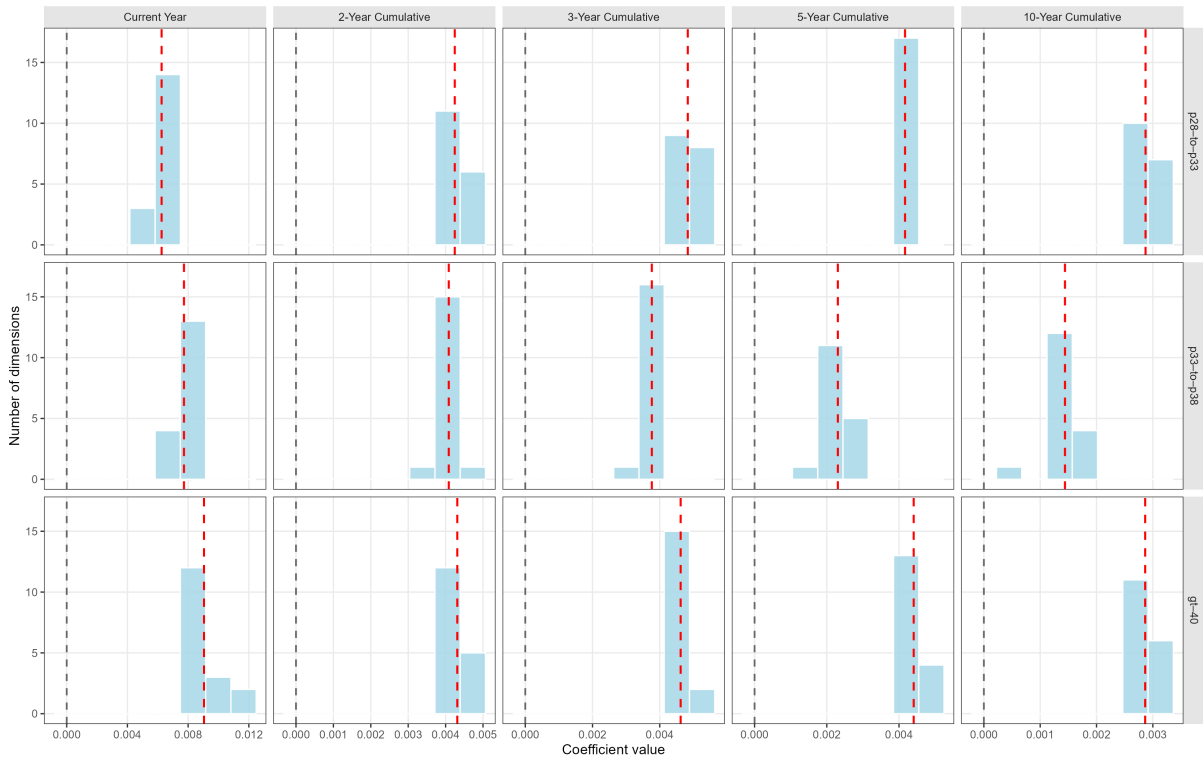
Supplementary Figure S7: **Robustness to Sensitivity to Bin Definition.** Comparison of estimated effects using the baseline 5°C bin specification versus a simplified Cold/Hot share model. The left panel shows the average marginal effect of a 1 percentage point increase in the share of days in the Cold (<12°C) and Hot (>28°C) bands. The right panel shows the distribution of the Hot band effect across policy dimensions.



Supplementary Figure S8: **Robustness to Cumulative Exposure Windows.** Distribution of estimated coefficients for "hot bins" ( $\geq 28^\circ\text{C}$ ) across all policy dimensions, varying the cumulative exposure window from the current year to 10 years. The red dashed line indicates the mean coefficient for each panel.

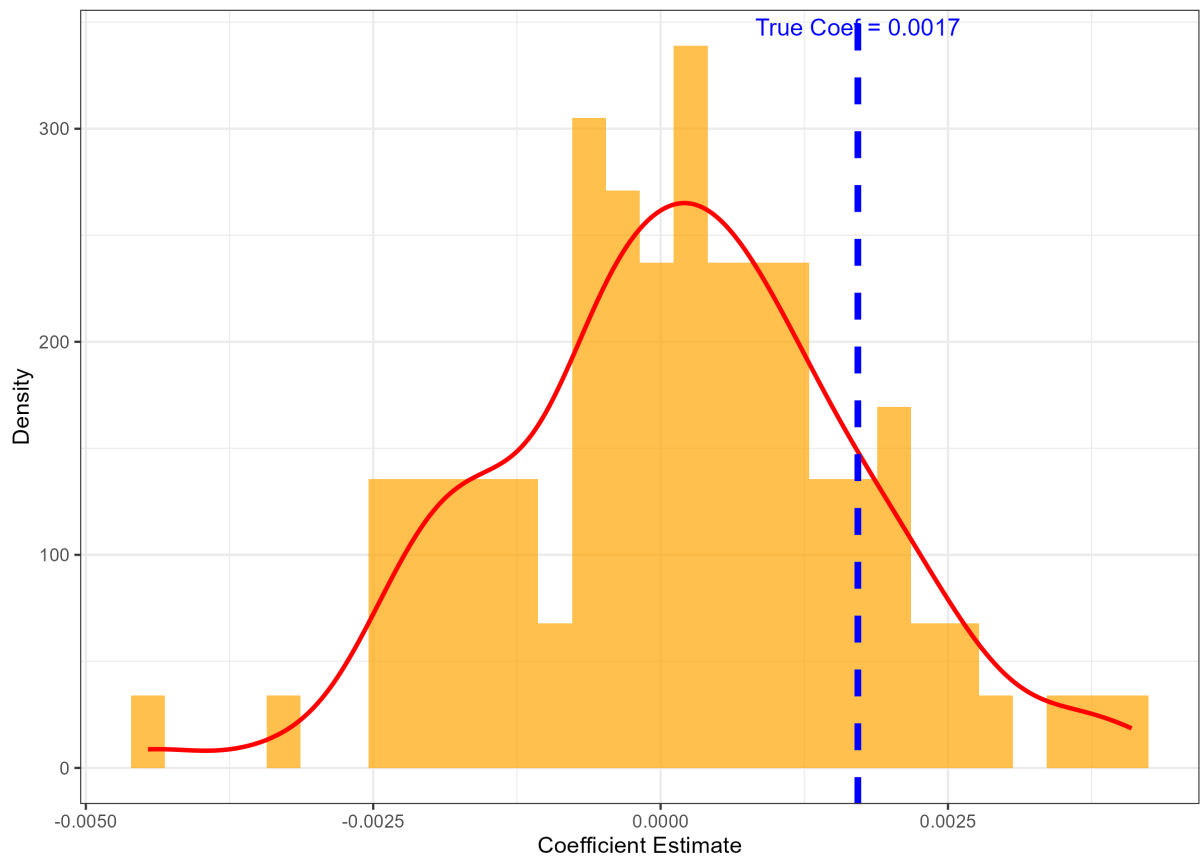
Cumulative temperature effects ( $\geq 28^{\circ}\text{C}$  bins): histogram view

Each panel: distribution across PSSC dimensions for a given hot bin and time window



Supplementary Figure S9: **Robustness to Cumulative Exposure Windows.** Distribution of estimated coefficients for "hot bins" ( $\geq 28^{\circ}\text{C}$ ) across all policy dimensions, varying the cumulative exposure window from the current year to 10 years. The red dashed line indicates the mean coefficient for each panel.

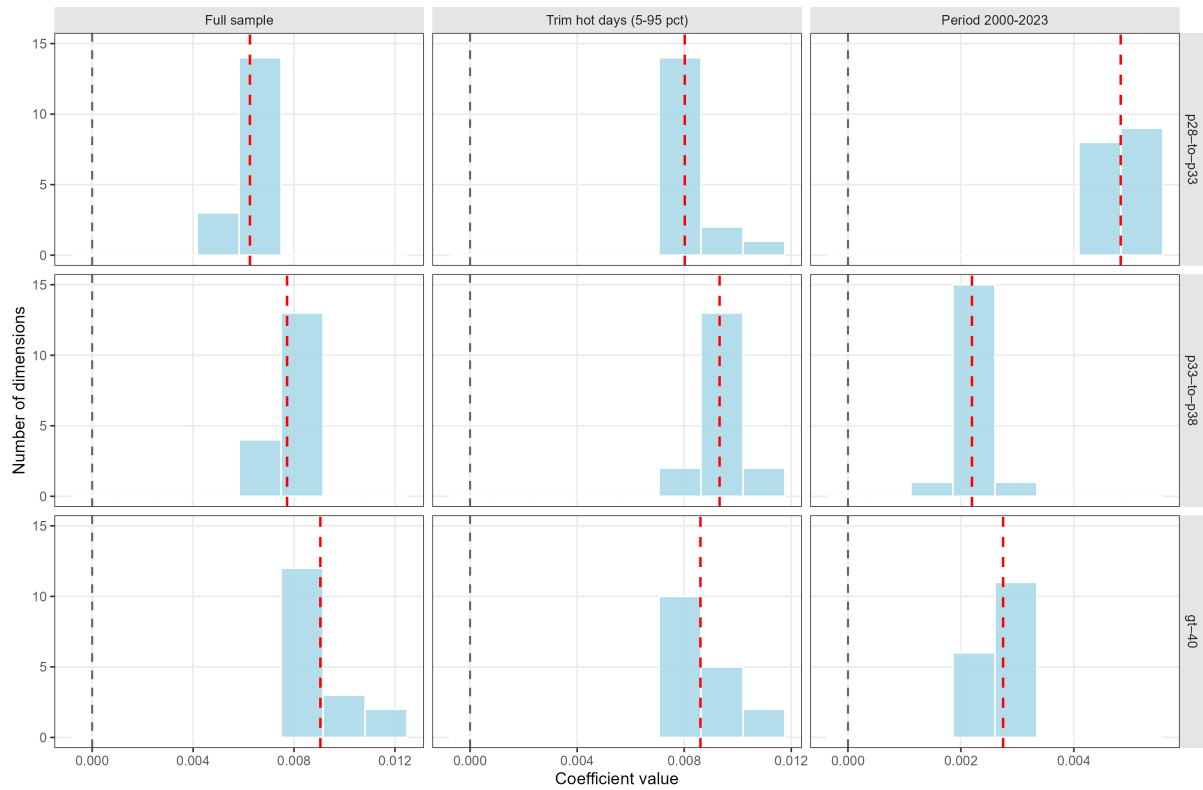
### Randomization Inference: Temperature



Supplementary Figure S10: **Randomization Inference for Temperature Effects.** Distribution of placebo coefficients from 1,000 permutations of the temperature shock variable. The histogram shows the density of coefficients obtained by randomly shuffling temperature shock across province-years while re-estimating the baseline model. The blue curve is a kernel density estimate. The red dashed line marks the true estimated coefficient, which lies far in the right tail of the permuted distribution ( $p < 0.01$ ), providing strong evidence that the observed temperature shock–policy relationship is not a statistical artifact.

Sample selection robustness ( $\geq 28^\circ\text{C}$  bins)

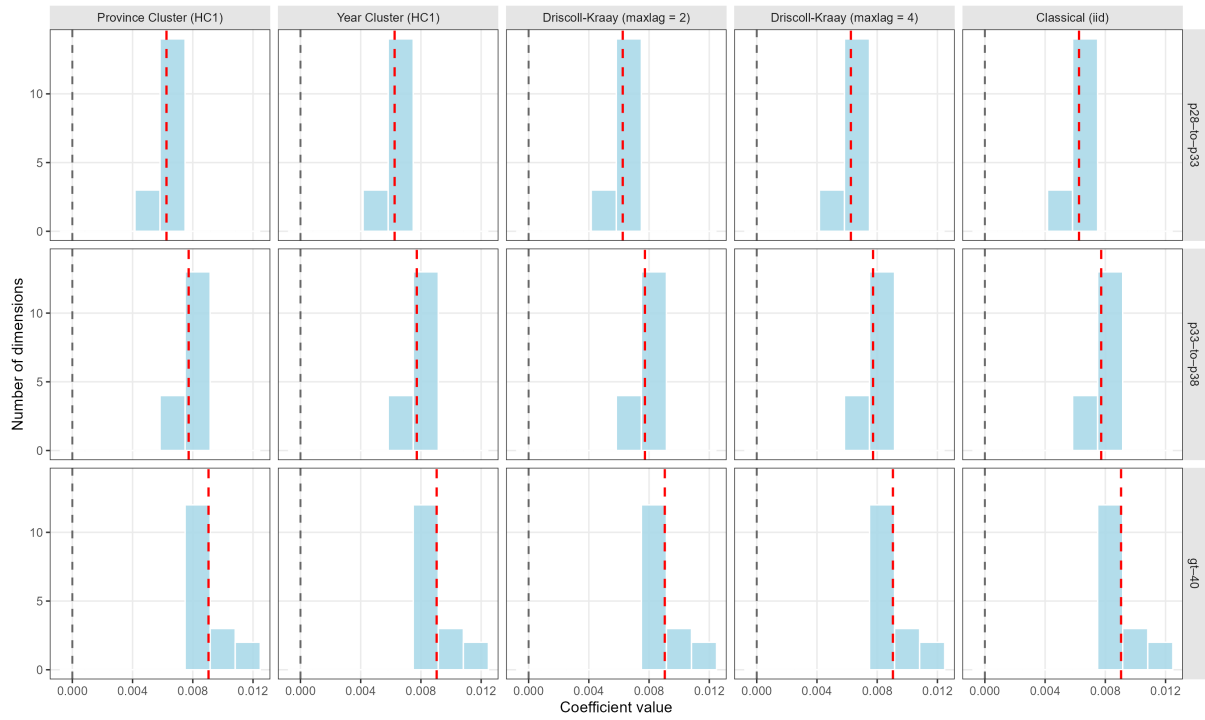
Each panel: distribution across PSCC dimensions for a given hot bin and sample specification



Supplementary Figure S11: **Robustness to Sample Selection.** Distribution of estimated coefficients for "hot bins" ( $\geq 28^\circ\text{C}$ ) across different sample specifications: Full sample, Trimmed sample (excluding extreme hot day counts), and Post-2000 period. Results indicate stability across sample restrictions.

Standard error specification robustness ( $\geq 28^{\circ}\text{C}$  bins)

Each panel: distribution across PSCC dimensions for a given hot bin and SE specification



Supplementary Figure S12: **Robustness to Standard Error Specifications.** Distribution of estimated coefficients for "hot bins" ( $\geq 28^{\circ}\text{C}$ ) using different standard error clustering and correction methods. Significance levels are robust to accounting for spatial and serial correlation (Driscoll-Kraay).

## Supplementary Note S4: Supplementary Tables

Supplementary Table S1: Classification performance of three candidate LLMs under five prompting strategies. Each model is evaluated on a held-out test set of 400 expert-annotated policy titles. Bold values indicate the best-performing configuration. All models show 0% label flip rate across 20 repeated inference runs.

Model	Prompt Strategy	Accuracy	F1	Precision	Recall
Mistral-Small-24B	Zero-shot	0.720	0.588	0.976	0.421
	One-shot	0.735	0.621	0.967	0.458
	Few-shot	0.818	0.777	0.927	0.668
	Few-shot + CoT	0.898	0.891	0.903	0.879
	RAG + Few-shot	0.900	0.894	0.899	0.889
Qwen-2.5-14B	Zero-shot	0.675	0.492	0.955	0.332
	One-shot	0.695	0.541	0.947	0.379
	Few-shot	0.855	0.834	0.913	0.768
	Few-shot + CoT	0.908	0.900	0.923	0.879
	RAG + Few-shot	0.898	0.894	0.878	0.911
Qwen-2.5-32B	Zero-shot	0.723	0.599	0.954	0.437
	One-shot	0.728	0.609	0.955	0.447
	Few-shot	0.803	0.754	0.924	0.637
	Few-shot + CoT	0.910	0.909	0.877	0.942
	RAG + Few-shot	<b>0.920</b>	<b>0.920</b>	0.880	<b>0.963</b>

Supplementary Table S2: Disaster Impact on Policy Response

Policy Dimension	Coefficients (Standard Errors)				
	Disaster Impact	GDP (log)	Secondary Industry (log)	Pop Density (log)	Per Capita Income (log)
<i>Aggregate Policy Responses</i>					
PSCC (Overall)	0.087*** (0.025)	-0.585*** (0.103)	0.563*** (0.114)	-0.294 (0.422)	0.201* (0.106)
Mitigation PSCC	0.086*** (0.025)	-0.570*** (0.103)	0.569*** (0.114)	-0.306 (0.421)	0.210** (0.106)
Adaption PSCC	0.090*** (0.025)	-0.623*** (0.105)	0.547*** (0.116)	-0.254 (0.428)	0.174 (0.107)
<i>Mitigation Sub-dimensions</i>					
AFOLU	0.095*** (0.025)	-0.537*** (0.102)	0.509*** (0.112)	-0.342 (0.415)	0.176 (0.104)
Energy	0.087*** (0.025)	-0.529*** (0.102)	0.535*** (0.113)	-0.352 (0.419)	0.190* (0.105)
Industry	0.082*** (0.026)	-0.564*** (0.104)	0.584*** (0.116)	-0.320 (0.428)	0.255** (0.107)
Intersectoral	0.090*** (0.025)	-0.569*** (0.104)	0.530*** (0.115)	-0.321 (0.425)	0.211** (0.107)
Legislative	0.093*** (0.025)	-0.592*** (0.103)	0.613*** (0.114)	-0.292 (0.422)	0.229** (0.106)
Market	0.087*** (0.025)	-0.548*** (0.104)	0.564*** (0.115)	-0.336 (0.424)	0.231** (0.106)
Social-Economic	0.084*** (0.026)	-0.638*** (0.106)	0.612*** (0.117)	-0.228 (0.433)	0.237** (0.108)
Technology	0.086* (0.033)	-0.825*** (0.134)	0.994*** (0.149)	0.403 (0.548)	0.536*** (0.137)
Transport	0.088*** (0.025)	-0.597*** (0.104)	0.598*** (0.116)	-0.207 (0.428)	0.237** (0.107)
Urban	0.087*** (0.025)	-0.556*** (0.102)	0.541*** (0.113)	-0.334 (0.419)	0.165 (0.105)
<i>Adaptation Sub-dimensions</i>					
Cross-sectoral	0.088*** (0.024)	-0.485*** (0.100)	0.490*** (0.110)	-0.370 (0.407)	0.160 (0.102)
Energy Systems	0.089*** (0.024)	-0.505*** (0.100)	0.499*** (0.111)	-0.362 (0.409)	0.155 (0.102)
Land & Ocean	0.087*** (0.025)	-0.548*** (0.104)	0.564*** (0.115)	-0.336 (0.424)	0.231** (0.106)
Urban & Infrastructure	0.089*** (0.024)	-0.504*** (0.100)	0.493*** (0.111)	-0.363 (0.410)	0.152 (0.102)

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Observations: 959. All models include Year and Provincial fixed effects. Driscoll-Kraay standard errors (max lag = 2) in parentheses.

Supplementary Table S3: Disaster Cumulative Mechanism: Temporal Response Dynamics

Policy Dimension	Temporal Response Characteristics					
	Coef. Current	Coef. Cum. (3yr)	Speed (%)	Concavity Current	Concavity Cum. (3yr)	Delta TP
<i>Aggregate Policy Responses</i>						
PSCC (Overall)	0.213*** (0.062)	0.245*** (0.062)	14.838	0.078	0.050	1.113
Mitigation PSCC	0.214*** (0.062)	0.247*** (0.062)	15.874	0.079	0.051	1.083
Adaption PSCC	0.214*** (0.063)	0.240*** (0.063)	11.998	0.077	0.046	1.208
<i>Mitigation Sub-dimensions</i>						
AFOLU	0.203*** (0.061)	0.239*** (0.061)	18.088	0.069	0.043	1.331
Energy	0.205*** (0.061)	0.243*** (0.062)	18.210	0.075	0.048	1.143
Industry	0.213*** (0.063)	0.258*** (0.063)	20.858	0.081	0.056	1.002
Intersectoral	0.216*** (0.062)	0.246*** (0.063)	13.892	0.079	0.049	1.145
Legislative	0.238*** (0.062)	0.256*** (0.062)	7.655	0.090	0.056	0.977
Market	0.214*** (0.062)	0.247*** (0.063)	15.261	0.080	0.051	1.085
Social-Economic	0.218*** (0.064)	0.248*** (0.064)	13.515	0.083	0.053	1.021
Technology	0.290*** (0.080)	0.250*** (0.081)	-13.801	0.127	0.075	0.531
Transport	0.223*** (0.063)	0.248*** (0.063)	11.356	0.084	0.054	0.983
Urban	0.203*** (0.061)	0.244*** (0.062)	20.138	0.073	0.048	1.146
<i>Adaptation Sub-dimensions</i>						
Cross-sectoral	0.199*** (0.060)	0.243*** (0.060)	21.846	0.070	0.044	1.314
Energy Systems	0.195*** (0.060)	0.238*** (0.060)	22.035	0.067	0.042	1.352
Land & Ocean	0.214*** (0.062)	0.247*** (0.063)	15.261	0.080	0.051	1.085
Urban & Infrastructure	0.194*** (0.060)	0.239*** (0.060)	23.044	0.066	0.042	1.387

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Observations: 959. All models include Year and Provincial fixed effects. Driscoll-Kraay standard errors (max lag = 2) in parentheses. Coef. = Coefficient; Cum. = Cumulative; TP = Turning Point. Speed % indicates the rate of policy response acceleration. Negative values indicate deceleration. Concavity measures the curvature of the temporal response function.

Supplementary Table S4: Threshold Effects by Fiscal Expenditure

Policy Dimension	VeryLow FiscalExpenditure	Low FiscalExpenditure	Medium FiscalExpenditure	High FiscalExpenditure
<i>Aggregate Policy Responses</i>				
PSCC (Overall)	0.257 (0.178)	-0.198*** (0.081)	0.311*** (0.090)	0.156* (0.089)
Mitigation PSCC	0.230 (0.177)	-0.189*** (0.081)	0.312*** (0.090)	0.151* (0.089)
Adaptation PSCC	0.345 (0.184)	-0.223*** (0.084)	0.306*** (0.093)	0.168** (0.092)
<i>Mitigation Sub-dimensions</i>				
AFOLU	0.335 (0.171)	-0.189*** (0.078)	0.293*** (0.086)	0.163** (0.086)
Energy	0.251 (0.173)	-0.184*** (0.079)	0.315*** (0.087)	0.155* (0.087)
Industry	0.207 (0.181)	-0.174** (0.083)	0.323*** (0.091)	0.151* (0.091)
Intersectoral	0.227 (0.191)	-0.197*** (0.088)	0.278*** (0.097)	0.122 (0.096)
Legislative	0.160 (0.184)	-0.178** (0.084)	0.312*** (0.093)	0.148* (0.093)
Market	0.065 (0.143)	-0.187** (0.088)	0.300*** (0.096)	0.104 (0.095)
Social-Economic	0.141 (0.193)	-0.208*** (0.088)	0.300*** (0.097)	0.137 (0.097)
Technology	0.321 (0.220)	-0.205** (0.101)	0.325*** (0.111)	0.156 (0.111)
Transport	0.156 (0.178)	-0.204*** (0.081)	0.321*** (0.090)	0.148* (0.089)
Urban	0.243 (0.171)	-0.191*** (0.078)	0.313*** (0.087)	0.159** (0.086)
<i>Adaptation Sub-dimensions</i>				
Cross-sectoral	0.239 (0.164)	-0.196*** (0.075)	0.312*** (0.083)	0.174** (0.082)
Energy Systems	0.124 (0.124)	-0.212*** (0.076)	0.304*** (0.083)	0.161** (0.083)
Land & Ocean	0.065 (0.143)	-0.187** (0.088)	0.300*** (0.096)	0.104 (0.095)
Urban & Infrastructure	0.134 (0.124)	-0.213*** (0.076)	0.299*** (0.083)	0.158** (0.083)

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Observations: 959.

White's heteroscedasticity-consistent standard errors in parentheses.

Triple threshold model. All regressions include province and year fixed effects.

Supplementary Table S5: Threshold Effects by GDP

Policy Dimension	Very Low GDP	Low GDP	Medium GDP	High GDP
<i>Aggregate Policy Responses</i>				
PSCC (Overall)	-0.505*** (0.158)	-0.019 (0.132)	0.798*** (0.112)	1.111*** (0.103)
Mitigation PSCC	-0.498*** (0.158)	-0.010 (0.132)	0.797*** (0.112)	1.110*** (0.102)
Adaptation PSCC	-0.522*** (0.160)	-0.041 (0.134)	0.803*** (0.114)	1.113*** (0.104)
<i>Mitigation Sub-dimensions</i>				
AFOLU	-0.443*** (0.152)	-0.023 (0.127)	0.776*** (0.108)	1.072*** (0.099)
Energy	-0.482*** (0.156)	0.004 (0.130)	0.799*** (0.111)	1.100*** (0.101)
Industry	-0.487*** (0.161)	-0.011 (0.134)	0.816*** (0.114)	1.144*** (0.105)
Intersectoral	-0.518*** (0.160)	-0.058 (0.134)	0.752*** (0.114)	1.078*** (0.104)
Legislative	-0.534*** (0.162)	-0.001 (0.136)	0.815*** (0.115)	1.137*** (0.106)
Market	-0.499*** (0.160)	-0.028 (0.134)	0.755*** (0.114)	1.087*** (0.104)
Social-Economic	-0.567*** (0.163)	-0.053 (0.136)	0.776*** (0.115)	1.110*** (0.106)
Technology	-0.558*** (0.174)	-0.077 (0.145)	0.792*** (0.124)	1.163*** (0.113)
Transport	-0.526*** (0.159)	0.012 (0.132)	0.794*** (0.113)	1.094*** (0.103)
Urban	-0.477*** (0.156)	0.000 (0.130)	0.800*** (0.111)	1.099*** (0.101)
<i>Adaptation Sub-dimensions</i>				
Cross-sectoral	-0.473*** (0.153)	0.011 (0.127)	0.801*** (0.108)	1.088*** (0.099)
Energy Systems	-0.465*** (0.152)	0.008 (0.127)	0.799*** (0.108)	1.082*** (0.099)
Land & Ocean	-0.499*** (0.160)	-0.028 (0.134)	0.755*** (0.114)	1.087*** (0.104)
Urban & Infrastructure	-0.460*** (0.152)	0.002 (0.127)	0.791*** (0.108)	1.075*** (0.099)

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Observations: 959.

White's heteroscedasticity-consistent standard errors in parentheses.

Triple threshold model. All regressions include province and year fixed effects.

Supplementary Table S6: Threshold Effects by Green Patent

Policy Dimension	VeryLow Green Patent	Low Green Patent	Medium Green Patent	High Green Patent
<i>Aggregate Policy Responses</i>				
PSCC (Overall)	-0.092 (0.067)	0.364*** (0.071)	0.255*** (0.062)	0.120** (0.063)
Mitigation PSCC	-0.083 (0.067)	0.368*** (0.071)	0.256*** (0.062)	0.123** (0.063)
Adaptation PSCC	-0.137* (0.072)	0.340*** (0.076)	0.241*** (0.067)	0.090 (0.067)
<i>Mitigation Sub-dimensions</i>				
AFOLU	-0.105 (0.064)	0.337*** (0.068)	0.242*** (0.059)	0.117** (0.060)
Energy	-0.067 (0.067)	0.374*** (0.071)	0.261*** (0.062)	0.121** (0.063)
Industry	-0.071 (0.069)	0.368*** (0.073)	0.259*** (0.063)	0.135** (0.064)
Intersectoral	-0.109 (0.068)	0.349*** (0.072)	0.247*** (0.063)	0.120** (0.063)
Legislative	-0.079 (0.069)	0.387*** (0.073)	0.265*** (0.064)	0.120** (0.064)
Market	-0.085 (0.068)	0.363*** (0.071)	0.246*** (0.062)	0.125** (0.063)
Social-Economic	-0.102 (0.071)	0.369*** (0.075)	0.256*** (0.065)	0.125** (0.066)
Technology	-0.066 (0.085)	0.452*** (0.090)	0.311*** (0.078)	0.156** (0.079)
Transport	-0.078 (0.070)	0.373*** (0.074)	0.252*** (0.065)	0.112** (0.065)
Urban	-0.084 (0.066)	0.359*** (0.069)	0.248*** (0.061)	0.119** (0.061)
<i>Adaptation Sub-dimensions</i>				
Cross-sectoral	-0.103 (0.062)	0.342*** (0.066)	0.237*** (0.058)	0.118** (0.058)
Energy Systems	-0.103 (0.062)	0.339*** (0.066)	0.234*** (0.058)	0.113** (0.058)
Land & Ocean	-0.085 (0.068)	0.363*** (0.071)	0.246*** (0.062)	0.125** (0.063)
Urban & Infrastructure	-0.105 (0.062)	0.335*** (0.066)	0.232*** (0.058)	0.113** (0.058)

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Observations: 959.

White's heteroscedasticity-consistent standard errors in parentheses.

Triple threshold model. All regressions include province and year fixed effects.

Supplementary Table S7: Compound Disaster Effects: Impact of Multiple Disaster Types on Policy Response

<b>Policy Dimension</b>	<b>Single Type</b>	<b>Two Types</b>	<b>Three+ Types</b>
<b><i>Aggregate Policy Responses</i></b>			
PSCC (Overall)	0.089** (0.043)	0.157*** (0.050)	0.180*** (0.061)
Mitigation PSCC	0.087** (0.043)	0.159*** (0.050)	0.180*** (0.062)
Adaptation PSCC	0.098** (0.044)	0.151*** (0.051)	0.180*** (0.060)
<b><i>Mitigation Sub-dimensions</i></b>			
AFOLU	0.085** (0.042)	0.157*** (0.051)	0.182*** (0.060)
Energy	0.082** (0.041)	0.155*** (0.049)	0.180*** (0.061)
Industry	0.083* (0.043)	0.159*** (0.049)	0.179*** (0.062)
Intersectoral	0.093** (0.043)	0.158*** (0.050)	0.180*** (0.062)
Legislative	0.101** (0.046)	0.171*** (0.051)	0.184*** (0.062)
Market	0.082* (0.045)	0.161*** (0.050)	0.178*** (0.064)
Social-Economic	0.091* (0.049)	0.157*** (0.052)	0.168** (0.065)
Technology	0.138* (0.079)	0.178** (0.070)	0.165** (0.076)
Transport	0.093** (0.045)	0.166*** (0.052)	0.188*** (0.064)
Urban	0.080** (0.040)	0.154*** (0.051)	0.180*** (0.063)
<b><i>Adaptation Sub-dimensions</i></b>			
Cross-sectoral	0.081** (0.041)	0.152*** (0.048)	0.180*** (0.060)
Energy Systems	0.082** (0.041)	0.148*** (0.049)	0.180*** (0.060)
Land & Ocean	0.082* (0.045)	0.161*** (0.050)	0.178*** (0.064)
Urban & Infrastructure	0.081* (0.042)	0.148*** (0.049)	0.180*** (0.060)

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Observations: 959.

All regressions include province and year fixed effects and control variables.

Driscoll-Kraay standard errors (max lag = 2) in parentheses.

Supplementary Table S8: Temperature Cumulative Effects: Extreme Heat (>40°C) Response Dynamics

Policy Dimension	Response to Extreme Heat (>40°C)		
	Coef. Current	Coef. Cum. (3yr)	Speed (%)
<i>Aggregate Policy Responses</i>			
PSCC (Overall)	0.009** (0.004)	0.005** (0.002)	-48.721
Mitigation PSCC	0.009** (0.004)	0.005** (0.002)	-47.836
Adaptation PSCC	0.011*** (0.004)	0.005** (0.002)	-53.851
<i>Mitigation Sub-dimensions</i>			
AFOLU	0.010*** (0.004)	0.005** (0.002)	-50.970
Energy	0.009** (0.004)	0.005** (0.002)	-48.093
Industry	0.009** (0.004)	0.004** (0.002)	-48.943
Intersectoral	0.009** (0.003)	0.004** (0.002)	-49.353
Legislative	0.008** (0.004)	0.005** (0.002)	-41.317
Market	0.008** (0.003)	0.004** (0.002)	-47.428
Social-Economic	0.008** (0.004)	0.005** (0.002)	-46.827
Technology	0.012** (0.005)	0.005* (0.003)	-60.918
Transport	0.008** (0.004)	0.005** (0.002)	-40.215
Urban	0.009** (0.004)	0.004** (0.002)	-49.291
<i>Adaptation Sub-dimensions</i>			
Cross-sectoral	0.009** (0.004)	0.005** (0.002)	-47.225
Energy Systems	0.009** (0.004)	0.005** (0.002)	-47.639
Land & Ocean	0.008** (0.003)	0.004** (0.002)	-47.428
Urban & Infrastructure	0.009** (0.004)	0.005** (0.002)	-48.680

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Observations: 1245.

All regressions include province and year fixed effects. Driscoll-Kraay standard errors in parentheses. Coef. = Coefficient; Cum. = Cumulative; Speed % indicates the rate of policy response acceleration.

Supplementary Table S9: Temperature & Fiscal Expenditure Interaction Effects on Policy Response

Policy Dimension	<-12	-12:-7	-7:-2	-2:3	3:8	8:13	13:18	23:28	28:33	33:38	>40
<i>Aggregate Policy Responses</i>											
PSCC (Overall)	0.019 (0.019)	-0.008 (0.010)	0.004 (0.007)	-0.012*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003* (0.002)	-0.001* (0.001)	0.000 (0.001)	0.002** (0.001)	0.000 (0.002)
Mitigation PSCC	0.020 (0.019)	-0.009 (0.010)	0.005 (0.007)	-0.012*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003** (0.002)	-0.001 (0.001)	0.000 (0.001)	0.002** (0.001)	0.000 (0.002)
Adaptation PSCC	0.036 (0.033)	-0.009 (0.012)	0.001 (0.007)	-0.011*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003 (0.002)	-0.001** (0.001)	0.000 (0.001)	0.002** (0.001)	0.000 (0.002)
<i>Mitigation Sub-dimensions</i>											
AFOLU	0.014 (0.017)	-0.005 (0.010)	0.002 (0.007)	-0.012*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003* (0.002)	-0.001* (0.001)	0.000 (0.001)	0.002** (0.001)	-0.000 (0.002)
Energy	0.018 (0.019)	-0.008 (0.010)	0.005 (0.007)	-0.012*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003** (0.002)	-0.001* (0.001)	0.000 (0.001)	0.002** (0.001)	0.000 (0.001)
Industry	0.022 (0.020)	-0.008 (0.010)	0.005 (0.007)	-0.012*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003** (0.002)	-0.001 (0.001)	0.000 (0.001)	0.002** (0.001)	0.001 (0.002)
Intersectoral	0.030 (0.024)	-0.016 (0.011)	0.008 (0.008)	-0.013*** (0.004)	0.001 (0.001)	0.002* (0.001)	0.003* (0.002)	-0.001 (0.001)	0.000 (0.001)	0.002** (0.001)	0.000 (0.002)
Legislative	0.019 (0.019)	-0.011 (0.011)	0.008 (0.008)	-0.013*** (0.004)	0.001 (0.001)	0.002* (0.001)	0.003** (0.002)	-0.001* (0.001)	0.000 (0.001)	0.002*** (0.001)	0.001 (0.002)
Market	0.031 (0.028)	-0.014 (0.011)	0.009 (0.008)	-0.013*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003* (0.002)	-0.001 (0.001)	0.000 (0.001)	0.002** (0.001)	0.001 (0.001)
Social-Economic	0.024 (0.023)	-0.011 (0.011)	0.007 (0.007)	-0.013*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003* (0.002)	-0.001 (0.001)	0.000 (0.001)	0.002** (0.001)	0.001 (0.002)
Technology	0.034 (0.033)	-0.018 (0.013)	0.013 (0.010)	-0.015*** (0.006)	0.002 (0.002)	0.001 (0.001)	0.004* (0.002)	-0.001 (0.001)	0.000 (0.001)	0.003*** (0.001)	0.001 (0.002)
Transport	0.020 (0.020)	-0.008 (0.010)	0.003 (0.007)	-0.011** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003** (0.002)	-0.001 (0.001)	-0.000 (0.001)	0.002*** (0.001)	0.001 (0.002)
Urban	0.020 (0.019)	-0.008 (0.010)	0.003 (0.007)	-0.012*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003** (0.002)	-0.001 (0.001)	0.000 (0.001)	0.002** (0.001)	0.000 (0.002)
<i>Adaptation Sub-dimensions</i>											
Cross-sectoral	0.015 (0.016)	-0.005 (0.010)	0.002 (0.007)	-0.012*** (0.004)	0.002 (0.001)	0.002** (0.001)	0.003* (0.002)	-0.001** (0.001)	0.000 (0.001)	0.002** (0.001)	0.000 (0.001)
Energy Systems	0.015 (0.017)	-0.005 (0.010)	0.001 (0.007)	-0.012*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003* (0.002)	-0.001** (0.001)	0.000 (0.001)	0.002** (0.001)	0.000 (0.001)
Land & Ocean	0.031 (0.028)	-0.014 (0.011)	0.009 (0.008)	-0.013*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003* (0.002)	-0.001 (0.001)	0.000 (0.001)	0.002** (0.001)	0.001 (0.001)
Urban & Infrastructure	0.014 (0.017)	-0.004 (0.010)	0.001 (0.007)	-0.011*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003* (0.002)	-0.001** (0.001)	0.000 (0.001)	0.002* (0.001)	-0.000 (0.001)

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Observations: 1245. Temperature bins in °C. Interaction coefficients show how fiscal expenditure moderates temperature effects on policy response. All regressions include province and year fixed effects. Driscoll-Kraay standard errors in parentheses.

Supplementary Table S10: Temperature  $\times$  GDP Interaction Effects on Policy Response

Policy Dimension	<-12	-12:-7	-7:-2	-2:3	3:8	8:13	13:18	23:28	28:33	33:38	>40
<i>Aggregate Policy Responses</i>											
PSCC (Overall)	0.021 (0.041)	0.006 (0.018)	-0.012 (0.011)	-0.014*** (0.005)	0.002 (0.001)	0.002** (0.001)	0.002 (0.002)	-0.002*** (0.001)	0.001 (0.001)	0.001 (0.001)	-0.001 (0.002)
Mitigation PSCC	0.023 (0.041)	0.005 (0.018)	-0.011 (0.011)	-0.014*** (0.005)	0.001 (0.001)	0.002** (0.001)	0.003* (0.002)	-0.001*** (0.001)	0.001 (0.001)	0.001 (0.001)	-0.000 (0.002)
Adaptation PSCC	0.058 (0.072)	0.002 (0.023)	-0.015 (0.011)	-0.013*** (0.005)	0.001 (0.001)	0.002*** (0.001)	0.002 (0.002)	-0.002*** (0.001)	0.001 (0.001)	0.001 (0.001)	-0.001 (0.002)
<i>Mitigation Sub-dimensions</i>											
AFOLU	0.011 (0.035)	0.011 (0.017)	-0.015 (0.010)	-0.014*** (0.004)	0.002 (0.001)	0.002** (0.001)	0.002 (0.002)	-0.001*** (0.000)	0.001 (0.001)	0.001 (0.001)	-0.001 (0.002)
Energy	0.018 (0.039)	0.005 (0.018)	-0.011 (0.011)	-0.013*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.003* (0.002)	-0.001*** (0.001)	0.001 (0.001)	0.001 (0.001)	-0.000 (0.002)
Industry	0.027 (0.043)	0.005 (0.019)	-0.011 (0.011)	-0.013*** (0.005)	0.001 (0.001)	0.002** (0.001)	0.003* (0.002)	-0.002*** (0.001)	0.001 (0.001)	0.001 (0.001)	-0.000 (0.002)
Intersectoral	0.046 (0.050)	-0.007 (0.021)	-0.004 (0.012)	-0.015*** (0.005)	0.002 (0.001)	0.002** (0.001)	0.002 (0.002)	-0.002** (0.001)	0.001 (0.001)	0.001 (0.001)	-0.001 (0.002)
Legislative	0.020 (0.041)	0.002 (0.019)	-0.006 (0.012)	-0.015*** (0.005)	0.001 (0.001)	0.002** (0.001)	0.003* (0.002)	-0.002*** (0.001)	0.001 (0.001)	0.002* (0.001)	-0.000 (0.002)
Market	0.049 (0.058)	-0.006 (0.021)	-0.003 (0.012)	-0.014*** (0.005)	0.001 (0.001)	0.002** (0.001)	0.002 (0.001)	-0.002*** (0.001)	0.001 (0.001)	0.001 (0.001)	-0.001 (0.002)
Social-Economic	0.029 (0.048)	0.004 (0.019)	-0.007 (0.012)	-0.015*** (0.005)	0.002 (0.001)	0.002*** (0.001)	0.003 (0.002)	-0.002** (0.001)	0.001 (0.001)	0.001 (0.001)	-0.000 (0.002)
Technology	0.054 (0.068)	-0.009 (0.025)	0.003 (0.015)	-0.017*** (0.007)	0.002 (0.002)	0.002** (0.001)	0.003 (0.002)	-0.001** (0.001)	0.001 (0.001)	0.002** (0.001)	-0.000 (0.002)
Transport	0.025 (0.043)	0.003 (0.019)	-0.013 (0.011)	-0.013*** (0.005)	0.001 (0.001)	0.002*** (0.001)	0.003* (0.002)	-0.001** (0.001)	0.001 (0.001)	0.002* (0.001)	-0.000 (0.002)
Urban	0.025 (0.042)	0.004 (0.018)	-0.013 (0.011)	-0.013*** (0.005)	0.001 (0.001)	0.002** (0.001)	0.003* (0.002)	-0.001** (0.001)	0.001 (0.001)	0.001 (0.001)	-0.001 (0.002)
<i>Adaptation Sub-dimensions</i>											
Cross-sectoral	0.013 (0.035)	0.009 (0.017)	-0.016 (0.010)	-0.013*** (0.004)	0.001 (0.001)	0.001** (0.001)	0.002 (0.002)	-0.002*** (0.000)	0.001 (0.001)	0.001 (0.001)	-0.001 (0.002)
Energy Systems	0.013 (0.036)	0.009 (0.017)	-0.017 (0.010)	-0.013*** (0.004)	0.001 (0.001)	0.002** (0.001)	0.002 (0.002)	-0.002*** (0.000)	0.001 (0.001)	0.001 (0.001)	-0.001 (0.002)
Land & Ocean	0.049 (0.058)	-0.006 (0.021)	-0.003 (0.012)	-0.014*** (0.005)	0.001 (0.001)	0.002** (0.001)	0.002 (0.001)	-0.002*** (0.001)	0.001 (0.001)	0.001 (0.001)	-0.001 (0.002)
Urban & Infrastructure	0.012 (0.036)	0.010 (0.017)	-0.017 (0.010)	-0.013*** (0.004)	0.001 (0.001)	0.002*** (0.001)	0.002 (0.002)	-0.002*** (0.000)	0.001 (0.001)	0.001 (0.001)	-0.001 (0.002)

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Observations: 1245. Temperature bins in  $\text{rC}$ . Interaction coefficients show how GDP moderates temperature effects on policy response. All regressions include province and year fixed effects. Driscoll-Kraay standard errors in parentheses.

Supplementary Table S11: Temperature  $\times$  Media Attention Interaction Effects on Policy Response

Policy Dimension	<-12	-12:-7	-7:-2	-2:3	3:8	8:13	13:18	23:28	28:33	33:38	>40
<i>Aggregate Policy Responses</i>											
PSCC (Overall)	-0.036*** (0.008)	0.007* (0.004)	-0.010** (0.004)	-0.001 (0.002)	0.004*** (0.001)	-0.002** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Mitigation PSCC	-0.037*** (0.008)	0.006* (0.004)	-0.010** (0.004)	-0.001 (0.002)	0.004*** (0.001)	-0.002** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.004*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Adaptation PSCC	-0.036*** (0.008)	0.007** (0.004)	-0.010** (0.004)	-0.001 (0.002)	0.004*** (0.001)	-0.002** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.001 (0.001)
<i>Mitigation Sub-dimensions</i>											
AFOLU	-0.036*** (0.007)	0.008** (0.003)	-0.010** (0.004)	-0.001 (0.002)	0.004*** (0.001)	-0.002** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Energy	-0.038*** (0.007)	0.007* (0.004)	-0.010** (0.004)	-0.001 (0.002)	0.004*** (0.001)	-0.002** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Industry	-0.038*** (0.008)	0.007 (0.004)	-0.011** (0.004)	-0.001 (0.002)	0.004*** (0.001)	-0.002** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Intersectoral	-0.032*** (0.007)	0.006* (0.004)	-0.010** (0.004)	-0.001 (0.002)	0.004*** (0.001)	-0.002** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Legislative	-0.032*** (0.008)	0.006 (0.004)	-0.009** (0.004)	-0.001 (0.002)	0.004*** (0.001)	-0.001** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.004*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Market	-0.032*** (0.007)	0.005 (0.004)	-0.009** (0.004)	-0.002 (0.002)	0.004*** (0.001)	-0.002** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Social-Economic	-0.031*** (0.008)	0.006 (0.004)	-0.009** (0.004)	-0.002 (0.002)	0.004*** (0.000)	-0.001* (0.001)	0.000 (0.001)	-0.001 (0.001)	0.004*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Technology	-0.032*** (0.008)	0.005 (0.004)	-0.009** (0.004)	-0.001 (0.002)	0.004*** (0.001)	-0.002** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.004*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Transport	-0.041*** (0.009)	0.006 (0.004)	-0.010** (0.005)	-0.001 (0.002)	0.004*** (0.001)	-0.002** (0.001)	0.001 (0.001)	-0.001 (0.001)	0.004*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Urban	-0.040*** (0.007)	0.007* (0.004)	-0.010** (0.005)	-0.000 (0.002)	0.004*** (0.001)	-0.002*** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.001 (0.001)
<i>Adaptation Sub-dimensions</i>											
Cross-sectoral	-0.037*** (0.007)	0.007** (0.004)	-0.009** (0.004)	-0.001 (0.002)	0.004*** (0.001)	-0.002*** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Energy Systems	-0.037*** (0.007)	0.008** (0.004)	-0.010** (0.004)	-0.000 (0.002)	0.004*** (0.001)	-0.002*** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Land & Ocean	-0.032*** (0.007)	0.005 (0.004)	-0.009** (0.004)	-0.002 (0.002)	0.004*** (0.001)	-0.002** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.001 (0.001)
Urban & Infrastructure	-0.036*** (0.008)	0.008** (0.003)	-0.010** (0.004)	-0.000 (0.002)	0.004*** (0.001)	-0.002** (0.001)	0.000 (0.001)	-0.001 (0.001)	0.003*** (0.001)	0.002*** (0.001)	0.001 (0.001)

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Observations: 1245. Temperature bins in  $^{\circ}\text{C}$ . Interaction coefficients show how media attention moderates temperature effects on policy response. All regressions include province and year fixed effects. Driscoll-Kraay standard errors in parentheses.

Supplementary Table S12: Temperature  $\times$  Population Density Interaction Effects on Policy Response

Policy Dimension	<-12	-12:-7	-7:-2	-2:3	3:8	8:13	13:18	23:28	28:33	33:38	>40
<i>Aggregate Policy Responses</i>											
PSCC (Overall)	-0.174* (0.095)	-0.086 (0.054)	-0.004 (0.010)	-0.024*** (0.005)	-0.004** (0.002)	-0.006*** (0.001)	0.001 (0.001)	0.004*** (0.001)	0.001 (0.002)	0.003*** (0.001)	0.005** (0.002)
Mitigation PSCC	-0.174* (0.095)	-0.085 (0.053)	-0.004 (0.010)	-0.024*** (0.005)	-0.004** (0.002)	-0.006*** (0.001)	0.001 (0.001)	0.004*** (0.001)	0.001 (0.001)	0.003*** (0.001)	0.005** (0.002)
Adaptation PSCC	-0.133 (0.110)	-0.104 (0.066)	-0.006 (0.011)	-0.023*** (0.006)	-0.004** (0.002)	-0.005*** (0.001)	0.000 (0.001)	0.004*** (0.001)	0.001 (0.002)	0.003*** (0.001)	0.005* (0.002)
<i>Mitigation Sub-dimensions</i>											
AFOLU	-0.157* (0.085)	-0.093* (0.056)	-0.003 (0.010)	-0.024*** (0.005)	-0.004** (0.002)	-0.006*** (0.001)	0.001 (0.001)	0.004*** (0.001)	0.001 (0.001)	0.003*** (0.001)	0.004** (0.002)
Energy	-0.176* (0.093)	-0.081 (0.052)	-0.004 (0.010)	-0.023*** (0.005)	-0.004*** (0.002)	-0.006*** (0.001)	0.001 (0.001)	0.004*** (0.001)	0.001 (0.001)	0.003*** (0.001)	0.005** (0.002)
Industry	-0.157 (0.104)	-0.091 (0.057)	-0.003 (0.010)	-0.024*** (0.005)	-0.005*** (0.002)	-0.006*** (0.001)	0.001 (0.001)	0.005*** (0.001)	0.001 (0.002)	0.003*** (0.001)	0.005** (0.002)
Intersectoral	-0.143 (0.104)	-0.078 (0.054)	-0.005 (0.011)	-0.024*** (0.005)	-0.004** (0.002)	-0.006*** (0.001)	0.001 (0.001)	0.004*** (0.001)	0.001 (0.002)	0.003*** (0.001)	0.005** (0.002)
Legislative	-0.188* (0.098)	-0.080 (0.052)	-0.004 (0.011)	-0.023*** (0.005)	-0.004*** (0.002)	-0.006*** (0.001)	0.001 (0.001)	0.004*** (0.001)	0.001 (0.002)	0.003*** (0.001)	0.005** (0.002)
Market	-0.115 (0.123)	-0.075 (0.052)	-0.005 (0.011)	-0.022*** (0.005)	-0.004** (0.002)	-0.006*** (0.001)	0.001 (0.001)	0.004*** (0.001)	0.001 (0.001)	0.003*** (0.001)	0.005** (0.002)
Social-Economic	-0.161 (0.111)	-0.089* (0.052)	-0.004 (0.011)	-0.024*** (0.005)	-0.004** (0.002)	-0.006*** (0.001)	0.001 (0.001)	0.004*** (0.001)	0.001 (0.002)	0.004*** (0.001)	0.005** (0.002)
Technology	-0.212 (0.144)	-0.096 (0.067)	-0.005 (0.015)	-0.029*** (0.008)	-0.004 (0.002)	-0.006*** (0.002)	0.001 (0.002)	0.004*** (0.001)	-0.000 (0.002)	0.003** (0.001)	0.003 (0.003)
Transport	-0.218** (0.101)	-0.086 (0.053)	-0.003 (0.011)	-0.023*** (0.005)	-0.004** (0.002)	-0.006*** (0.001)	0.000 (0.001)	0.005*** (0.001)	0.001 (0.002)	0.003*** (0.001)	0.005** (0.002)
Urban	-0.183* (0.093)	-0.082 (0.052)	-0.004 (0.010)	-0.023*** (0.005)	-0.004*** (0.002)	-0.006*** (0.001)	0.001 (0.001)	0.005*** (0.001)	0.001 (0.001)	0.003*** (0.001)	0.005** (0.002)
<i>Adaptation Sub-dimensions</i>											
Cross-sectoral	-0.175** (0.079)	-0.077 (0.054)	-0.005 (0.009)	-0.023*** (0.005)	-0.004*** (0.001)	-0.006*** (0.001)	0.000 (0.001)	0.004*** (0.001)	0.001 (0.001)	0.003*** (0.001)	0.005** (0.002)
Energy Systems	-0.176** (0.081)	-0.077 (0.054)	-0.004 (0.009)	-0.023*** (0.005)	-0.004*** (0.001)	-0.006*** (0.001)	0.000 (0.001)	0.004*** (0.001)	0.001 (0.001)	0.003*** (0.001)	0.004** (0.002)
Land & Ocean	-0.115 (0.123)	-0.075 (0.052)	-0.005 (0.011)	-0.022*** (0.005)	-0.004** (0.002)	-0.006*** (0.001)	0.001 (0.001)	0.004*** (0.001)	0.001 (0.001)	0.003*** (0.001)	0.005** (0.002)
Urban & Infrastructure	-0.171** (0.082)	-0.079 (0.055)	-0.004 (0.009)	-0.023*** (0.005)	-0.004*** (0.001)	-0.005*** (0.001)	0.000 (0.001)	0.004*** (0.001)	0.001 (0.001)	0.003*** (0.001)	0.004** (0.002)

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Observations: 1245. Temperature bins in  $^{\circ}\text{C}$ . Interaction coefficients show how population density moderates temperature effects on policy response. All regressions include province and year fixed effects. Driscoll-Kraay standard errors in parentheses.

Supplementary Table S13: Alternative Measures of Disaster Shocks (Dummy Variable Approach)

	(1)	(2)	(3)
Variables	PRI (Agg)	Mitigation	Adaptation
Disaster Dummy	0.105*** (0.021)	0.104*** (0.032)	0.111*** (0.025)
Controls	Yes	Yes	Yes
FE (Prov + Year)	Yes	Yes	Yes
Observations	1,230	1,230	1,230
R-squared	0.452	0.389	0.410

Note: Standard errors clustered at the province level in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Supplementary Table S14: Robustness Check: Reverse Causality Test

<b>Dependent variable:</b>	
log(1 + EMDTA_COUNT)	
PSCC_PRO <sub>t-1</sub>	0.000 (0.000)
PSCC_PRO <sub>t-2</sub>	0.000 (0.000)
Observations	1,187
R <sup>2</sup>	0.002
Adjusted R <sup>2</sup>	-0.064
F Statistic	1.063 (df = 2; 1113)

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Standard errors clustered at province level.

Supplementary Table S15: Pre-treatment Placebo Test: Do Future Disasters Predict Current Policy?

	<i>Dependent variable:</i>		
	log(1 + PSCC_PRO)		
	Lead 1	Lead 2	Lead 3
	(1)	(2)	(3)
log(1 + EMDTA <sub>t+1</sub> )	0.009 (0.009)		
log(1 + EMDTA <sub>t+2</sub> )		0.010 (0.009)	
log(1 + EMDTA <sub>t+3</sub> )			0.009 (0.009)
log(1 + GDP)	-0.592*** (0.107)	-0.570*** (0.115)	-0.592*** (0.107)
log(1 + Pop. Density)	-0.535 (0.440)	-0.730* (0.387)	-0.535 (0.440)
log(1 + Precipitation)	0.254** (0.112)	0.255** (0.113)	0.254** (0.112)
log(1 + Secondary Ind.)	0.553*** (0.120)	0.534*** (0.127)	0.553*** (0.120)
Observations	959	928	959
R <sup>2</sup>	0.054	0.058	0.054

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01  
Driscoll-Kraay standard errors (max lag = 2) are in parentheses.  
All models include province and year fixed effects.

Supplementary Table S16: Robustness Check: Randomization Inference Test (Disaster Models)

Test Statistic	Value
True Coefficient	0.081***
Mean of Permuted Coefficients	0.003
Std. Dev. of Permuted Coefficients	0.024
Randomization Inference p-value	0.000
Number of Permutations	100

Notes: \*\*\* p<0.01 based on randomization inference.

The test randomly permutes treatment assignment to generate the null distribution.

Supplementary Table S17: Robustness Check: Alternative Disaster Measure (Binary Dummy)

Variable	Dependent Variable: policy response (log)		
	Aggregate	Mitigation	Adaptation
Disaster Dummy	0.105*** (0.040)	0.104*** (0.040)	0.111*** (0.041)
Controls	Yes	Yes	Yes
Province FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	955	955	955

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Standard errors clustered at province level.

Supplementary Table S18: Robustness Check: Sample Selection Sensitivity (Disaster Models)

Variable	(1)	(2)	(3)	(4)
	Baseline Full Sample	Excl. Extreme Disasters (>p99)	Excl. Extreme Policy (>p99)	Period 2000-2023
Disaster Count (log)	0.081** (0.034)	0.079** (0.034)	0.071** (0.034)	0.077** (0.032)
Controls	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	955	945	945	744

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Standard errors clustered at province level.

Supplementary Table S19: Robustness Check: Varying Cumulative Time Windows (Disaster Models)

<b>Variable</b>	<b>Current (t)</b>	<b>2-Year Cum.</b>	<b>3-Year Cum.</b>	<b>5-Year Cum.</b>	<b>10-Year Cum.</b>
Disaster Count (log)	0.213*** (0.072)	0.202** (0.084)	0.245** (0.095)	0.309*** (0.117)	0.360** (0.155)
Controls	Yes	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Observations	955	955	955	955	955

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Standard errors clustered at province level.

Supplementary Table S20: Robustness Check: Alternative Standard Error Specifications (Disaster Models)

<b>Variable</b>	<b>(1) Province Cluster</b>	<b>(2) Year Cluster</b>	<b>(3) Driscoll- Kraay</b>	<b>(4) Classical (IID)</b>
Disaster Count (log)	0.081** (0.040)	0.081** (0.035)	0.081*** (0.025)	0.081** (0.034)
t-value	2.05	2.34	3.30	2.37
p-value	0.041	0.019	0.001	0.018
Observations	955	955	955	955

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Driscoll-Kraay max lag = 2.

Supplementary Table S21: Robustness Check: Bin Definition (Temperature Models)

	(1) Overall	(2) Mitigation	(3) Adaptation
Hot Share (> 28°C)	2.161*** (0.757)	2.042*** (0.740)	2.502*** (0.860)
Observations	1,245	1,245	1,245
Province FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Standard errors clustered at province level.

Supplementary Table S22: Robustness Check: Cumulative Exposure Windows (Temperature Models)

Temperature Bin	(1) Current	(2) 2-Year	(3) 3-Year	(4) 5-Year	(5) 10-Year
28-33°C	0.006*** (0.002)	0.004** (0.002)	0.005*** (0.001)	0.004*** (0.001)	0.003*** (0.001)
33-38°C	0.008*** (0.003)	0.004** (0.002)	0.004*** (0.001)	0.002** (0.001)	0.002* (0.001)
>40°C	0.009** (0.004)	0.004* (0.002)	0.005** (0.002)	0.005** (0.002)	0.003 (0.002)
Controls	Yes	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Dependent variable is log(1+PSCC\_PRO).

Supplementary Table S23: Robustness Check: Sample Selection (Temperature Models)

	(1)	(2)	(3)
Temperature Bin	Full Sample	Trimmed (5-95%)	2000-2023
28-33°C	0.006*** (0.002)	0.008*** (0.002)	0.005*** (0.001)
33-38°C	0.008*** (0.003)	0.010*** (0.003)	0.002 (0.002)
>40°C	0.009** (0.004)	0.009*** (0.003)	0.003 (0.002)
Observations	1,245	1,120	744
Province FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes

Notes: \* p&lt;0.1, \*\* p&lt;0.05, \*\*\* p&lt;0.01.

Supplementary Table S24: Robustness Check: Standard Error Specifications (Temperature Models)

	(1)	(2)	(3)	(4)	(5)
Temperature Bin	Prov. Cluster	Year Cluster	DK (lag=2)	DK (lag=4)	Classical
28-33°C	0.006** (0.003)	0.006*** (0.002)	0.006*** (0.002)	0.006*** (0.002)	0.006*** (0.002)
33-38°C	0.008* (0.004)	0.008*** (0.003)	0.008*** (0.003)	0.008** (0.003)	0.008*** (0.003)
>40°C	0.009** (0.005)	0.009** (0.004)	0.009** (0.004)	0.009** (0.004)	0.009*** (0.004)
Province FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

Notes: \* p&lt;0.1, \*\* p&lt;0.05, \*\*\* p&lt;0.01. Coefficients are identical; only standard errors vary.

## Supplementary Note S5: System Prompt for RAG Classification

Below we provide the complete system prompt used in the RAG classification pipeline (Section S1.1), translated into English from the original Chinese. This prompt is passed to the Qwen-2.5 32B model as the **system** role message. The `{context}` placeholder is dynamically replaced with the top-15 retrieved policy titles from the ChromaDB index at inference time.

*The following is the overall chain-of-thought reasoning protocol:*

**Step 1.** You must understand the policy intent contained in the policy title and determine whether this intent has potential effects on climate change mitigation and/or adaptation.

**Step 2.** You must identify any *unintended consequences* embedded in the policy title. Unintended-consequence policies are those originally designed for other purposes but that may produce positive or negative spillover effects on climate change. Determine whether this policy has potential unintended climate mitigation or adaptation consequences.

**Step 3.** Synthesise the results of Steps 1 and 2, and cross-reference them thoroughly against the IPCC enumeration of climate **mitigation** measures (50 sub-categories: energy systems; wind energy; solar energy; bioenergy; hydropower; geothermal energy; nuclear energy; carbon capture and storage (CCS); coal phase-down; reduced coal mining; CH<sub>4</sub> emissions from oil and gas; carbon sequestration in agriculture; reduced CH<sub>4</sub> and N<sub>2</sub>O emissions in agriculture; reduced conversion of forests and other ecosystems; ecosystem restoration, impacts, and reversal; improved sustainable forest management; reduced food loss and waste; shift to balanced, sustainable healthy diets; avoided demand for energy services; efficient lighting, appliances, and equipment; high-efficiency new buildings; on-site renewable production and use; improved existing building stock; enhanced use of wood products; fuel-efficient light-duty vehicles; electric light-duty vehicles; shift to public transport; shift to cycling and e-bikes; fuel-efficient heavy-duty vehicles; electric heavy-duty vehicles including buses; transport efficiency and optimisation; aviation energy efficiency; biofuels; industrial systems; energy efficiency; material efficiency; enhanced recycling; fuel switching (electricity, natural gas, bioenergy, H<sub>2</sub>); feedstock decarbonisation and process change; carbon capture and utilisation (CCU) and CCS; cementitious material substitution; reduced non-CO<sub>2</sub> emissions; urban land use and spatial planning; electrification of urban energy systems; district heating and cooling networks; urban green-blue infrastructure; waste prevention, reduction, and management; integrated industrial strategies and innovation; reduced fluorinated gas emissions; reduced CH<sub>4</sub> from solid waste; reduced CH<sub>4</sub> from wastewater) and climate **adaptation** measures (23 sub-categories: coastal defence and hardening; integrated coastal zone management; forest-based adaptation; sustainable aquaculture and fisheries; agroforestry; biodiversity management and ecosystem connectivity; water-use efficiency and water resource management; improved cropland management; efficient livestock systems; green infrastructure and ecosystem services; sustainable land use and urban planning; sustainable urban water management; enhanced water-use efficiency; resilient power systems; energy reliability; health and sanitation system adaptation; livelihood diversification; planned relocation and resettlement; human migration; disaster risk management; climate services including early warning systems; social safety nets; risk spreading and sharing). Make a comprehensive judgement on whether the policy has potential climate effects.

**Step 4.** Please refer to the following representative examples:

- Ministry of Agriculture emergency notice on ensuring safe winter passage for livestock in disaster areas → 0

- Report on the comprehensive plan for controlling Yellow River floods and developing Yellow River water resources → 1
- Tax Collection and Administration Law of the People’s Republic of China → 0
- Personnel appointments and dismissals by the State Council of the PRC → 0
- Ministry of Education notice on issuing the National Education Development 12th Five-Year Plan → 0
- Ministry of Finance, State Taxation Administration, and Central Propaganda Department notice on continuing tax policies for cultural institution reform → 0
- CPC Central Committee and State Council directive on large-scale afforestation nationwide → 1
- State Council notice forwarding the Ministry of Water Resources and Electric Power report on developing small hydropower and Chinese-style rural electrification pilot counties → 1
- State Council Decree No. 570: Regulations on Meteorological Disaster Prevention → 1
- State Council notice on issuing the Action Plan for Carbon Dioxide Peaking Before 2030 → 1
- Report on the Ten-Year Plan and Eighth Five-Year Plan Outline for National Economic and Social Development → 1
- General Office of the State Council notice on strengthening the protection of electric power facilities → 1
- Urban Water Supply Regulations → 1
- Ministry of Agriculture notice on flood prevention for small reservoir projects → 1
- First Ministry of Machine-Building Industry directive on preventing summer heat → 1
- State Administration of Work Safety Order No. 82: Ten Provisions for Strengthening Coal Mine Gas Prevention → 1
- CPC Central Committee and State Council General Offices: Provincial Spatial Planning Pilot Programme → 1
- Presidential Decree No. 82: Grassland Law of the People’s Republic of China → 1
- General Office of the State Council forwarding the Ministry of Forestry briefing on stabilising mountain and forest tenure → 1
- State Taxation Administration announcement on issuing the Coal Resource Tax Collection and Administration Measures (Trial) → 1
- State Council notice forwarding the Ministry of Agriculture and Ministry of Water Resources report on the 1957 national irrigation management conference → 1
- General Office of the State Council forwarding the report on strengthening basic farmland construction in poverty-stricken areas → 1
- State Council decision on monopoly operation of chemical fertilisers, pesticides, and agricultural films → 1
- Coal Business Administration Measures → 1
- China Environmental Status Bulletin (Summary), State Environmental Protection Administration → 1

**Step 5.** Also refer thoroughly to the following retrieved results, which are similar to the target policy:

{context} (*dynamically populated at inference time with top-15 retrieved policy titles*)

**Step 6.** Based on the above background, execute the task: analyse whether the policy title provided by the user has potential climate change mitigation and/or adaptation effects.

The user prompt that accompanies this system prompt is:

*Here is the policy title provided by the user: “{policy\_title}”*

*Instruction: return only the classification result, “1” or “0”, with no explanation or discussion.*

Note that the original prompt numbers Steps 1, 2, 3, 4, 5, and 6; the six-step description in Section [S1.1](#) presents these as a continuous sequence for clarity.