Media Environment and Climate Knowledge as Drivers of Public Support for Green Investment in Europe

Evidence from the EIB Climate Survey

Marta ANTUNES, Agathe BLANQUET, Michael GILLESBERGER, Cosimo ZATTI, Xinpei ZHOU

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Table of Contents

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1. Executive Summary

Accelerating Europe's green transition requires stronger willingness to support climate investments. However, the rapid spread of mis- and disinformation exacerbated by AI-content can distort public awareness of climate risks and undermine trust in climate policies.

This study examines how the structure of national information environments influences both climate knowledge and support for climate investment. We use two structural proxies for resilience to misinformation: media literacy, defined as the capacity to critically evaluate information and identify misleading content, and media pluralism, reflecting the diversity, independence, and social inclusiveness of media landscapes.

Drawing on previously unexplored data from the 2023 EIB Climate Survey, we construct two composite indices: a Climate Knowledge Index (CKI) and a Support for Climate Investment Index (SCI). We combine these with indicators of media environments and various controls to estimate two complementary models. The first, a country-level model, tests whether stronger information environments are associated with higher climate knowledge across EU member states. The second, an individual-level model, examines whether greater climate knowledge among individuals translates into stronger support for climate investment.

We conclude two key findings. First, information environments matter for climate knowledge: we find tentative evidence that higher media literacy and media pluralism are linked to greater climate knowledge on the country-level. Second, knowledge drives support for climate investment: individuals with higher climate knowledge show stronger willingness to fund climate policies. We also find that political orientation and demographic characteristics affect support, and that cross-country differences within the EU persist even after controlling for individuals characteristics.

Overall, our results suggest the importance of education, media plurality, and inclusive communication for fostering public backing of Europe's green transition.

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2. Introduction

Mobilizing capital for the green transition in Europe is crucial for addressing climate change, yet public support for climate investment remains fragile. These challenges are exacerbated by the rapid spread of misinformation, which can distort public awareness of climate risks and undermine trust in climate policies. In 2024, the World Economic Forum identified AI-generated mis- and disinformation as the world's greatest threat (followed by climate change), and according to a United Nations survey, 87% of respondents believe online misinformation has already harmed their country's politics (WEF, 2024; UN, 2023). In this context, the structure of national information environments, meaning how citizens are exposed to, engage with, and critically assess climate-related content, becomes a key factor in shaping support for climate action.

This study examines whether a stronger media environment leads to higher climate knowledge and, through it, greater support for climate investment. Given that misinformation is prevalent and difficult to quantify across countries, we focus on media literacy and pluralism as structural proxies for resilience to misleading information, rather than directly modelling misinformation exposure. Media literacy refers to the ability of individuals to critically evaluate sources of information, detect misleading claims, and form informed judgments. Media pluralism reflects the diversity, independence, and accessibility of media outlets within a country, ensuring that people encounter a range of viewpoints and are less reliant on a single source of information.

Recent literature has shown that misinformation poses a significant barrier to public understanding, particularly when individuals lack the critical skills to evaluate the accuracy of information (Lewandowsky, Ecker, & Cook, 2017). Research by Bagozzi and Munafò (2024) further demonstrates that individuals who are skilled at discerning accurate information are better equipped to form reliable opinions on complex issues like climate change. Building on this literature, we position media literacy and media pluralism as key structural components for enhancing resilience to misinformation in the context of climate change.

Our conceptual framework posits that information environments - characterised by media literacy and media pluralism - influence levels of climate knowledge, which in turn is a key determinant for support of climate investments. We derive two main hypotheses. First, countries with higher media literacy and more pluralistic media systems will have more (climate) knowledgeable citizens (H1). Second, higher climate knowledge will be associated with stronger support for climate investment, including a willingness to accept budgetary effort and redistribution (H2).

To test these hypotheses, we construct country- and individual-level indicators from the 2023 EIB Climate Survey and combine them with external data on media literacy and pluralism. We estimate two complementary regression models: a cross-country analysis assessing how national media environments relate to climate knowledge (Model 1), and an individual-level model examining whether climate knowledge affects support for climate investment (Model 2).

The remainder proceeds as follows: Section 3 reviews data sources, variable construction, and related literature; Section 4 details the methodology and empirical strategy; Section 5 presents the results; Section 6 concludes and provides policy implications.

3. Data Review

The Media Pluralism Index (MPI) is a composite indicator developed to assess the risks to media pluralism in European Union member states across legal, economic, political, and social dimensions. It is compiled each year by the Centre for Media Pluralism and Media Freedom (CMPF) (2023) at the European University Institute. Details on the composite index can be found in appendix 1.

The Media Literacy Index (MLI) is produced by the Open Society Institute (2023) and measures resilience to disinformation and the ability to critically assess media content, based on education, media freedom, and trust in media. It considers Media Freedom, Education, Trust in People and e-participation. A detailed account on the data examined for each variable can be found in appendix 2.

Eurostat compiles data for all EU countries. The percentage share of tertiary education (levels 5-8) for the population between 25 and 64 years for 2023 was retrieved from the Education and training database. The per capita GDP at current market prices, purchasing power standard (EU27 from 2020) for 2023 was taken from the Purchasing power parities database.

The European Investment Bank has conducted a climate survey from 2019 to 2024 to measure Europeans' perceptions, attitudes, and knowledge about climate change and climate policies. The EIB Climate Survey 2023 specifically focuses on knowledge on the causes, consequences and actions to fight climate change as well as people's opinion on the measures taken by their country to combat it.

4. Methodology

This study employs a quantitative, cross-country research design to assess the relationship between the information environment and public attitudes towards climate change. Using data from the EIB Climate Survey 2023 and secondary indicators such as the Media Literacy Index (MLI) and the Media Pluralism Index (MPI), the analysis investigates whether higher levels of media literacy and pluralism are associated with greater climate knowledge (H1) and stronger support for financial investment in climate action (H2).

The methodology involves constructing two composite indices, the Climate Knowledge Index (CKI) and the Support for Climate Investment Index (SCI), and testing the proposed relationships using multiple linear regressions.

4.1 Climate Knowledge Index (CKI)

The Climate Knowledge Index (CKI) assesses citizens' knowledge on climate change. CKI is computed as the sum of correct answers to twelve factual questions on climate change (range: 0-12). Scores are linearly rescaled to a 0-100 scale to ensure comparability across indicators. CKI is decomposed into three sub-indexes to grasp the granularity of variation in knowledge of the (1) definitions and causes of climate change, (2) consequences of climate change, and (3) actions to address climate change. The list of questions used in each sub-index can be found in appendix 3.

4.2 Support for Climate Investment Index (SCI)

The Support for Climate Investment Index (SCI) is computed from a set of survey questions assessing respondents' willingness to financially support measures aimed at addressing climate change. Each response is coded on a standardized 0-1 scale, with higher values indicating stronger support for public spending, taxation, and financial transfers to combat climate change. The standardized item scores are averaged and linearly rescaled to a 0-100 scale to ensure comparability across indicators and countries. The list of questions used in this index can be found in appendix 4.

4.3 Empirical Strategy

4.3.1 Media Environment and Climate Knowledge | Model 1

Model 1 examines how the media environment relates to national levels of climate knowledge across EU member states, testing hypothesis 1. Ordinary Least Squares (OLS) regressions are conducted at the country level, with the Climate Knowledge Index (CKI) as our main outcome measure.

Formally, the model can be expressed as:

$$CKI_{s,c} = \beta 0 + \beta 1 MLI_c + \beta 2 MPI_{k,c} + \beta 3 Controls_c + \varepsilon_c \qquad (1)$$

where $CKI_{s,c}$ represents the population-weighted national average of individuals' climate knowledge scores in country c for each sub-index s from the EIB Climate Survey 2023; MLI_c and $MPI_{k,c}$ (whereby k represents different sub-indices) serve as our key explanatory variables and $Controls_c$ is a vector of our country controls (GDP per capita and the share of the population with tertiary education as described in Section 3); ε_c is the error term.

4.3.2 Drivers of Climate Investment Support | Model 2

Model 2 tests whether greater climate knowledge is associated with stronger support for financial measures to address climate change (H2). The model therefore examines whether higher scores on the CKI are associated with higher values on the SCI, while also accounting for relevant socioeconomic and demographic control variables.

Formally, the model can be expressed as:

$$SCI_{i,c} = \beta 0 + \beta 1\, CKI_{i,c} + \beta 2\, X_{i,c} + \alpha_c + \varepsilon_{i,c} \qquad (2)$$

where $SCI_{i,c}$ denotes the support for climate investment of individual i in country c; $CKI_{i,c}$ represents individual climate knowledge; $X_{i,c}$ is a vector of individual-level control variables (age, gender, education, income, children, and political orientation, described in appendix 5); α_c are country fixed effects; and $\varepsilon_{i,c)}$ is the error term. The inclusion of fixed effects isolates within-country variation, allowing the coefficients to be interpreted as differences between individuals within the same national context. The model applies individual survey weights ($weight2$) to ensure representativeness across national populations and heteroscedasticity-robust standard errors ($HC1$) to correct for non-constant error variance.

5. Findings and Analysis

5.1 Country Patterns in Media Environments and Climate Attitudes

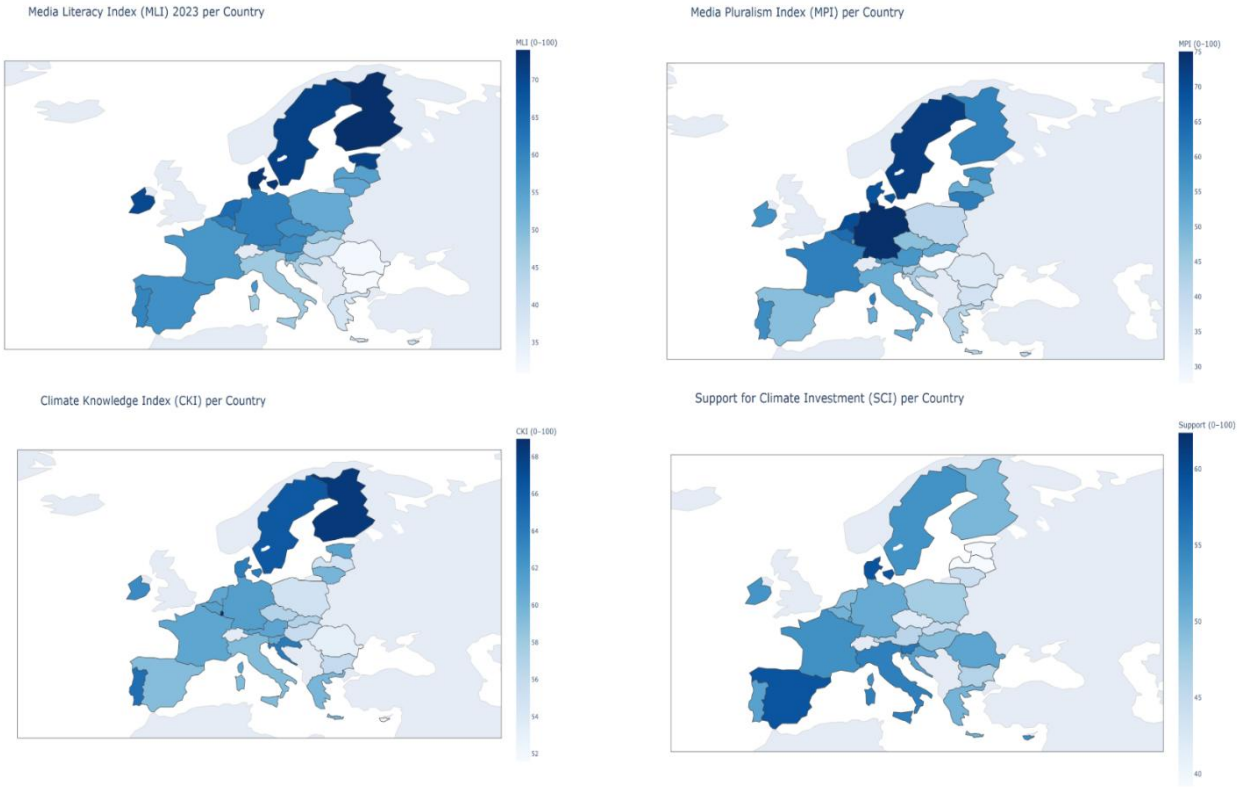

Figure 1: Geographic Comparison on Media Environment, CKI and SCI across the EU

The choropleth maps display cross-national variation in climate knowledge, media environment, and support for climate investment.

Countries in Northern Europe, such as Finland, Sweden and Denmark, score high on media literacy, media pluralism and the climate knowledge index. Several Central and Eastern European countries show comparatively lower values on these dimensions, while Southern European countries generally occupy intermediate positions.

In contrast, the geographic pattern of support for climate investment does not mirror the distribution of knowledge and information quality. Countries such as Finland with high media literacy and climate knowledge, or Germany with high media pluralism do not exhibit the highest willingness to support climate spending. Instead, relatively stronger support is observed in parts of Southern and Western Europe. This suggests that factors beyond information and awareness such as economic conditions, political framing, or national experience with climate policy may shape public support for climate investment.

5.2 Media Environment and Climate Knowledge | Model 1

This section presents the results of the country-level regression model examining whether the quality of national information environments, proxied by media literacy and media pluralism, is associated with higher levels of climate knowledge across EU Member States. As specified in

Section 4, the model additionally controls for the share of tertiary-educated adults and GDP per capita, ensuring that the estimated effects are not merely reflections of income or educational differences across countries.

The findings show that media literacy and media pluralism are positively associated with climate knowledge, although the strength and statistical precision of the association depend on the dimension of knowledge considered. When using the composite MPI, media pluralism is marginally significant (under the 10 percent level) for knowledge of climate causes, while media literacy is statistically significant for knowledge of climate-mitigation actions under the 5 percent level. This pattern suggests that information environments matter most for the dimensions of knowledge that require evaluating causal claims and mitigation strategies, rather than for more general awareness.

When disaggregating MPI into its four sub-indices (fundamental protection, market plurality, social inclusiveness and political independence), none of the components reaches statistical significance once included together. This is consistent with the high multicollinearity observed between the MPI sub-dimensions, which are interrelated and jointly capture similar institutional features. GDP per capita consistently attains significance, indicating that more affluent countries also tend to exhibit higher climate knowledge, whereas the share of tertiary education loses significance once media environment indicators are accounted for.

In sum, the country level analysis provides tentative evidence in support of hypothesis 1: stronger information environments are associated with higher climate knowledge. While the effects are not uniformly significant across all specifications, the direction of association is stable, and significance emerges once multicollinearity is reduced by using composite indicators. This indicates that media literacy and media pluralism shape the informational foundation on which climate understanding develops across countries.

The regression tables for all model configurations can be found in the appendix 6. Standard diagnostic tests indicate that the model meets the key OLS assumptions, with no evidence of multicollinearity or heteroscedasticity.

5.3 Drivers of Climate Investment Support | Model 2

This section presents the results of the regression model examining the relationship between individuals' climate knowledge and their support for climate policies across European Union member states. As outlined in Section 4, the model controls for demographic characteristics (age, gender, education, income, presence of children) and political orientation, while including country fixed effects to account for unobserved cross-national differences, including media plurality and media literacy.

The analysis reveals a strong and statistically significant relationship between climate knowledge and support for climate investment, holding socio-demographic characteristics and country origin equal. The magnitude of the effect is non-negligible, for instance, moving from 0.4 to 0.6 on the knowledge index corresponds to an estimated four-percentage-point increase in support.

Furthermore, marked differences persist between countries, even after controlling for individual characteristics. Respondents in Italy, Spain, Denmark, France, and Malta show significantly higher average support than those in Austria, which serves as the reference category. By contrast, countries such as Estonia, Latvia, and the Czech Republic display lower levels of

support. These cross-national variations likely reflect differences in political culture, public discourse, and national experiences with the effects of climate change and related policies.

Regarding demographic characteristics, age has a statistically significant effect on climate investment support. Compared to the youngest cohort (15-19 years), support declines with age, particularly among those aged 30-49, 50-64, and over 65. On average, respondents in the youngest cohort display support levels that are around eleven percentage points higher than those of the oldest group.

Moreover, respondents with children under 18 years show, on average, higher levels of support for climate measures. The same holds true for people with tertiary education who, compared to people with low levels of formal education, show three percentage points higher support for climate investments. Gender, by contrast, shows no significant effect on support for climate measures.

Unsurprisingly, political orientation also shows a pronounced effect: individuals identifying with left-of-centre political positions express higher support, while those on the political right are markedly less supportive. This confirms that climate attitudes remain strongly politicised across Europe. Income differences appear less pronounced. Middle-income respondents show no distinct pattern, while those in the top income deciles (9–10) exhibit slightly higher support.

Detailed regression results are presented in the appendix 6. The model explains approximately nine percent of the variation in support for climate investment, highlighting that while the identified relationships are statistically robust, a large share of individual preferences remains unexplained by our data.

Overall, these findings confirm the central role of knowledge as a driver of public support for climate investment, thereby supporting hypothesis 2. They also reveal that age, access to tertiary education, political orientation and nationality matter for the willingness to fund climate action.

5.4 Limitations

While the analysis provides meaningful insights into the previously unexplored relationship between media environment, climate knowledge, and public support for climate investment, several limitations should be acknowledged.

First, our models rely on survey data which can be subject to various biases. For instance, social desirability bias could inflate opinions on the support for climate measures whereas knowledge test scores may be biased by question framing or random guessing. Thus, the constructed indices for knowledge and support capture perceived rather than objectively verified knowledge and attitudes of individuals.

Secondly, the SCI is based on five survey items available in the 2023 EIB Climate Survey, therefore reflecting a limited dimension of pro-climate attitudes. This is because of the nature of the 2023 survey which focused on climate knowledge of participants.

Thirdly, Model 1 is constrained by the small cross-sectional sample of 27 EU countries for a single year. Although there is sufficient variation in average climate knowledge to estimate effects, the model does not control for countries' differing exposures to climate impacts or for other cultural and political factors that may shape awareness and knowledge on climate change.

Lastly, the explanatory power of the Model 2 is relatively low ($R^2 = 0.09$), indicating that while knowledge, ideology, and demographics explain part of the variation in support, many determinants remain unobserved. Factors such as trust in government, perceived fairness of climate policies, or recent national debates are likely to play an important role in individuals' attitudes toward climate investment.

Overall, these limitations show that the results should be interpreted with caution and that more research is needed to deepen understanding of the mechanisms linking media environment, knowledge, and climate investment support.

6. Conclusions and Recommendations

This study provides empirical evidence that the media environment shapes knowledge about climate change and that knowledge is a key determinant of an individual's support for public climate investment across EU Member States.

At the country level, stronger information environments, captured by higher media literacy and media pluralism, are positively associated with climate knowledge. These findings suggest that diverse, independent, and accessible media, together with citizens' ability to critically assess information, form an important foundation for climate awareness. Wealthier countries also tend to exhibit higher climate knowledge, while the share of tertiary-educated adults is less important.

At the individual level, climate knowledge is a significant driver of support for climate investment whereby moving from 0.4 to 0.6 on the knowledge index corresponds to an estimated four-percentage-point increase in support. Demographic characteristics and political orientation also influence support, with left-leaning individuals being more supportive. Cross-national differences persist even after controlling for individual characteristics, reflecting variations in political culture, public discourse, and national climate policy experience.

Various policy implications can be derived from these findings. Firstly, policies aimed at strengthening citizens' ability to critically evaluate information could improve climate knowledge and, indirectly, support for climate investment. Educational policies should specifically incorporate digital media literacy skills into schools' curricula as the need to critically evaluate online content and detect misinformation in times of AI-generated content is likely to increase in the future.

Secondly, promoting media pluralism and access to diverse information can provide citizens with exposure to multiple perspectives on climate change. Policies should aim to strengthen the independence of media companies, support local media outlets, and promote inclusive representation of different social groups in journalistic coverage.

Finally, given the pronounced effect of political orientation on support, climate policies and investment proposals should be framed in ways that resonate across the political spectrum, emphasizing shared economic, social, and environmental benefits. Reducing politicization of climate discourse could broaden public backing for green transition measures.

References

1. Bagozzi, B. E., & Munafo, M. R. (2024). The Misinformation Susceptibility Test (MIST): A psychometrically validated measure of news veracity discernment. *Frontiers in Psychology, 56*(3): 1863–1899.

2. Centre for Media Pluralism and Media Freedom. (2022). *Media Pluralism Monitor 2022*. European University Institute. Available at: https://cmpf.eui.eu/media-pluralism-monitor (Accessed: 20 October 2025).

2. Eurostat. (2025). Education and training – Database. Available at: https://ec.europa.eu/eurostat/web/education-and-training/database (Accessed: 20 October 2025).

3. Eurostat. (2025). Purchasing power parities – Database. Available at: https://ec.europa.eu/eurostat/web/purchasing-power-parities/database (Accessed: 20 October 2025).

4. European Commission. (n.d.). *Media literacy*. Available at: https://digital-strategy.ec.europa.eu/en/policies/media-literacy (Accessed: 20 October 2025).

5. European Commission. (n.d.). *Strategic communication and countering foreign information manipulation and interference*. Available at: https://commission.europa.eu/topics/countering-information-manipulation_en (Accessed: 20 October 2025).

6. European Investment Bank. (2023). EIB Climate Survey Results. (Internal database.)

7. Lewandowsky, S., Ecker, U. K. H., & Cook, J. (2017). Beyond misinformation: Understanding and coping with the "post-truth" era. *Journal of Applied Research in Memory and Cognition, 6*(4), 353–369.

8. Open Society Institute. (2023). *Media literacy index 2023*. European Policies Initiative. Available at: https://osis.bg/wp-content/uploads/2023/06/MLI-report-in-English-22.06.pdf (Accessed: 20 October 2025).

9. Solvita Denisa-Liepniece (2022). *With Media Literacy Towards Cognitive Resilience: Updates from the Baltic States, and lessons learned from Ukraine, Moldova, and Georgia*. Baltic Center for Media Excellence. Available at: https://bcme.eu/wp-content/uploads/2025/04/ML_Policy_Brief_2022.pdf (Accessed: 20 October 2025).

10. UNESCO (2023). *Survey on the impact of online disinformation and hate speech*. Available at: https://www.unesco.org/sites/default/files/medias/fichiers/2023/11/unesco_ipsos_survey.pdf (Accessed: 20 October 2025).

11. World Economic Forum (2024). *Global Risks Report 2024*. Available at: https://www.weforum.org/publications/global-risks-report-2024/digest/ (Accessed: 20 October 2025).

Appendix

Appendix 1

The Media Pluralism Index is compiled each year by the Centre for Media Pluralism and Media Freedom (CMPF), based on a selection of questions, they examine each country and attribute of score between 0 and 1 at 0.25 intervals, where 0 is the maximum (or a good level of protection) and 1 is the minimum (or a bad level of protection).

Media Pluralism Index (MPI) is structured around four sub-indices:

- **Fundamental Protection**, which evaluates the legal and practical safeguards for freedom of expression and access to information
  - *Protection of freedom of expression*
  - *Protection of the right to information*
  - *Journalistic profession, standards and protection*
  - *Independence and effectiveness of the media authority*
  - *Universal reach of traditional and new media*
- **Market Plurality**, which examines ownership concentration, transparency, and the sustainability of media markets
  - *Transparency of media ownership*
  - *Plurality of media providers*
  - *Plurality in digital markets*
  - *Media viability*
  - *Editorial independence from commercial and owners' influence*
- **Political Independence**, which assesses risks stemming from political influence and control over media content and governance
  - *Political independence of the media*
  - *Editorial autonomy*
  - *Audiovisual media, online platforms and elections*
  - *State regulation of resources and support to the media*.
- **Social Inclusiveness**, which captures representation and access to media for different social and cultural groups
  - *Access to media for minorities*
  - *Access to media for local and regional communities and for community media*
  - Access to media for women
  - *Media literacy*

Appendix 2

The Media Literacy Index (MLI) is a composite indicator for all European countries. They are given a score out of 100 and ranked from 1 to 41. They are then subset into 5 clusters, no EU-27 countries are in the bottom cluster.

The different indicators used are :

Indicator	Sub-indicators	Weight
Media Freedom	Freedom of the Press score by Freedom House	20%
	Press Freedom Index by Reporters without Borders	20%
Education	PISA score in reading literacy (OECD)	30%
	PISA score in scientific literacy (OECD)	5%
	PISA score mathematical literacy (OECD)	5%
	Tertiary Education enrolment (%) (World Bank)	5%
Trust	Trust in others (World Values Survey)	10%
New forms of participation	E-participation Index	5%

Appendix 3

The Climate Knowledge Index (CKI) conducts the same aggregation of questions as the EIB. To assess citizen's knowledge on climate change, questions 2 to 13 were examined. The following tables present the questions in each sub-index.

1. Knowledge on definition and causes of climate change

Nr	Question	Answer Options	Coding Summary
Q2	What is climate change?	A long-term shift in global climate patterns (= correct answer) A rapid change in the weather over a short period of time, especially in the summer Climate change is a hoax	Correct = 1 Incorrect = 0
Q3	What is the main cause of climate change?	Human activity such as deforestation, agriculture, industry and transport (= correct answer) Extreme natural phenomena, such as volcanic eruptions and heat waves The ozone hole	Correct = 1 Incorrect = 0
Q4	Which countries are the three biggest annual emitters of greenhouse gases?	China, the United States and India (= correct answer) Russia, Saudi Arabia and Qatar The United States, Japan and Germany	Correct = 1 Incorrect = 0

2. Knowledge on the consequences of climate change

Nr	Question	Answer Options	Coding Summary
Q5	Because of climate change…	The sea level is rising (= correct answer) The sea level is decreasing The sea level is stable, climate change mainly has an impact on lands	Correct = 1 Incorrect = 0
Q6	Climate change…	Is reducing world hunger by boosting crops yields thanks to warmer temperatures throughout the year. Is worsening world hunger by affecting yield of crops due to extreme weather. (= correct answer) Has no influence on world hunger. These are two independent problems.	Correct = 1 Incorrect = 0
Q7	Climate change …	Triggers an increase in migrations worldwide (= correct answer) Triggers an increase in the world population Has no specific influence on the world population or migrations	Correct = 1 Incorrect = 0
Q8	Climate change…	Has a negative impact on human health (for example, it can lead to an increase in air pollutants such as ground-level ozone and particulate matter) (= correct answer) Has a positive impact on human health (for example, it reduces extreme cold weather and increases access to vitamin D from sunlight) Has no specific influence on human health	Correct = 1 Incorrect = 0

3. Knowledge of solutions to address climate change

Nr	Question	Answer options	Coding Summary
Q9	Which of the following measures would help mitigate climate change?	Reduce our consumption of dairy products (= correct answer) Substitute all plastic bags with paper bags Make carbon offsetting* of all flights mandatory	Correct = 1 Incorrect = 0
Q10	Which of the following actions can help mitigate climate change	1 Using products that can be recycled and limit consumption of single-use items (= correct answer) 2 Watching fewer videos online (= correct answer) 3 Reducing consumption of dairy products (= correct answer) 4 Using public transportation instead of a car (= correct answer) 5 Helping clean local areas 6 Supporting ethical and fair-trade businesses 7 Reducing noise pollution 8 Reducing the speed limit on roads (= correct answer) 9 Better insulating buildings and homes (= correct answer) 10 Buying new clothes less frequently (= correct answer) 11 None of these actions	+ 1 for each correct action (1, 2, 3, 4, 8, 9, 10). Scores range 0-7. To ensure comparability, a binary variable was created where 1 means the respondent got selected than 50% of the correct answers.
Q11	“Individual carbon footprint” means…	The total amount of greenhouse gas emissions emitted by a person in a year (= correct answer) The total amount of carbon emissions a person is allowed to emit per year under international climate agreements The total amount of non-recyclable waste generated by an individual.	Correct = 1 Incorrect = 0
Q12	"Climate change adaptation" means…	Getting rid of everything that causes climate change, especially greenhouse gases emissions. Making changes to our ways of living and organizing societies to deal with the current and future impacts of climate change. (= correct answer)	Correct = 1 Incorrect = 0
Q13	Addressing climate change is more important and more urgent than addressing biodiversity loss.	True False (= correct answer)	Correct = 1 Incorrect = 0

Appendix 4

To assess citizen's support for investment in the fight for climate change, the following questions in the EIB Climate Survey 2023 were used.

Nr	Question	Answer Options	Coding Summary
Q1	What do you think are the three biggest challenges that people in your country are currently facing?	Variables of interest : Q1r4 and Q1r10	1 = climate change (4) or environmental degradation (10) among top 3 0 = not mentioned
Q14i	Would you say that…	1 Your government should address climate change without affecting your personal budget 2 Your government should address climate change even if it affects your personal budget	1 = agrees (2) 0 = oppose (1)
Q17	Your country has emitted a significant amount of CO2 in the past 200 years and is responsible for part of the climate change that is affecting some developing countries today. Do you agree that your country should financially compensate these developing countries to help them fight climate change?	- Yes - No	Yes = 1 No = 0
Q18	Phasing out fossil fuels (like oil, gas and coal) means that millions of jobs in the coal, gas, automotive and oil industry will disappear. How do you think this issue should be addressed?	1 Governments should subsidise and support training that enables workers in these industries to change careers 2 Nothing specific should be done, green industries will create new jobs and absorb the losses of the transition 3 Governments should not phase out fossil fuels because this may push people into poverty and cost jobs, in both developing and industrialised countries	1 = 1 2 = 0 3 = 0
Q20	How much extra taxes on your yearly income would you be willing to pay to finance climate policies that benefit people with lower income than yourself?	1 Nothing 2 1 % of your yearly income 3 2% of your yearly income 4 5% of your yearly income 5 10% of your yearly income	Nothing = 0 / x% of your yearly income (answer 2-5) = 1

Appendix 5

Variable	Type of variable	Coded
Country	Categorical (nominal)	Factor
Age (SD2)	Ordinal categorical, from 1 to 5 where 1 = 15-19 yo, 2 = 20-29 yo, 3 = 30-49 yo, 4 = 50-64 yo, 5= 65 yo and over	Factor
Gender (SD1)	Binary categorical, where 1 = male, 2 = female	Factor
Children under 18 (SD8)	Binary categorical, where 1 = yes, 2 = no	Factor
Education (SD8dupe1_recode)	Ordinal categorical, with three formal education levels where 1 = early childhood education, primary education, lower secondary education, 2 = upper secondary education, post-secondary non-tertiary education, 3 = tertiary education	Factor
Political preferences (SD6B)	Ordinal categorical, from 1 to 10 where 1 = very left-wing, 10 = very right-wing and 11 = does not wish to reply	Factor
Income (SD5)	Ordinal categorical, of 10 deciles where 1 = bottom decile, 10 = top decile and 11 = does not wish to reply	Factor

Appendix 6

Appendix Table 1: CKI (Causes) – MLI and MPI

	Dependent variable:
	Climate Knowledge Index – Causes
MLI_2023	0.120400 (0.117802)
MPI	0.188000* (0.108423)
educ_share	-0.002117* (0.001214)
gdp_pc	0.000001** (0.000001)
Constant	0.580415*** (0.041486)
Observations	27
R^2	0.528743
Adjusted R^2	0.443060
Residual Std. Error	0.041684 (df = 22)
F Statistic	6.170910*** (df = 4; 22)
Note:	*p<0.1; **p<0.05; ***p<0.01
	OLS estimates with 27 country observations. All models use country-level data. Standard errors in parentheses.

Appendix Table 2: CKI (Actions) – MLI and MPI

	Dependent variable:
	Climate Knowledge Index – Actions
MLI_2023	0.184505** (0.079978)
MPI	0.102685 (0.073610)
educ_share	-0.000546 (0.000824)
gdp_pc	0.000001*** (0.0000004)
Constant	0.199922*** (0.028166)
Observations	27
R^2	0.745015
Adjusted R^2	0.698654
Residual Std. Error	0.028300 (df = 22)
F Statistic	16.069880*** (df = 4; 22)
Note:	*p<0.1; **p<0.05; ***p<0.01
	OLS estimates with 27 country observations. All models use country-level data. Standard errors in parentheses.

Appendix Table 3: CKI (Total) – Subindices

	Dependent variable:
	Climate Knowledge Index – Total
MLI_2023	0.150373 (0.101877)
FP_total	-0.110163 (0.100794)
MP_total	0.023155 (0.114012)
SI_total	0.046598 (0.080726)
PI_total	0.079325 (0.086610)
educ_share	-0.001255 (0.001186)
gdp_pc	0.000001** (0.000001)
Constant	0.508466*** (0.067218)
Observations	27
R^2	0.609837
Adjusted R^2	0.466093
Residual Std. Error	0.032344 (df = 19)
F Statistic	4.242516*** (df = 7; 19)
Note:	*p<0.1; **p<0.05; ***p<0.01
	OLS estimates with 27 country observations. All models use country-level data. Standard errors in parentheses.

Appendix Table 4: CKI (Total) – MPI and MLI

	Dependent variable:
	Climate Knowledge Index – Total
MLI_2023	0.133805 (0.089508)
MPI	0.103511 (0.082382)
educ_share	-0.000821 (0.000922)
gdp_pc	0.000001** (0.0000005)
Constant	0.460998*** (0.031522)
Observations	27
R^2	0.566799
Adjusted R^2	0.488035
Residual Std. Error	0.031672 (df = 22)
F Statistic	7.196174*** (df = 4; 22)
Note:	*p<0.1; **p<0.05; ***p<0.01
	OLS estimates with 27 country observations. All models use country-level data. Standard errors in parentheses.

Appendix Table 5: CKI (Causes) – Subindices

	Dependent variable:
	Climate Knowledge Index – Causes
MLI_2023	0.053362 (0.129760)
FP_total	-0.141218 (0.128380)
MP_total	-0.169380 (0.145216)
SI_total	0.159318 (0.102819)
PI_total	0.196725* (0.110314)
educ_share	-0.003808** (0.001511)
gdp_pc	0.000002** (0.000001)
Constant	0.719810*** (0.085615)
Observations	27
R^2	0.602478
Adjusted R^2	0.456023
Residual Std. Error	0.041196 (df = 19)
F Statistic	4.113731*** (df = 7; 19)
Note:	*p<0.1; **p<0.05; ***p<0.01
	OLS estimates with 27 country observations. All models use country-level data. Standard errors in parentheses.

Appendix Table 6: CKI (Consequences) – Subindices

	Dependent variable:
	Climate Knowledge Index – Consequences
MLI_2023	0.179939 (0.137559)
FP_total	-0.251609* (0.136097)
MP_total	0.147429 (0.153944)
SI_total	-0.044745 (0.108999)
PI_total	0.089331 (0.116945)
educ_share	-0.000235 (0.001602)
gdp_pc	0.000001 (0.000001)
Constant	0.739993*** (0.090761)
Observations	27
R^2	0.343896

Adjusted R^2	0.102174
Residual Std. Error	0.043672 (df = 19)
F Statistic	1.422692 (df = 7; 19)
Note:	*p<0.1; **p<0.05; ***p<0.01
	OLS estimates with 27 country observations. All models use country-level data. Standard errors in parentheses.

Appendix Table 7: CKI (Consequences) – MLI and MPI

	Dependent variable:
	Climate Knowledge Index – Consequences
MLI_2023	0.080484 (0.133494)
MPI	0.041177 (0.122866)
educ_share	-0.000192 (0.001375)
gdp_pc	0.0000003 (0.000001)
Constant	0.697782*** (0.047012)
Observations	27
R^2	0.111233
Adjusted R^2	-0.050361
Residual Std. Error	0.047237 (df = 22)
F Statistic	0.688350 (df = 4; 22)
Note:	*p<0.1; **p<0.05; ***p<0.01
	OLS estimates with 27 country observations. All models use country-level data. Standard errors in parentheses.

Appendix Table 8: CKI (Actions) – Subindices

	Dependent variable:
	Climate Knowledge Index – Actions
MLI_2023	0.184926* (0.095286)
FP_total	0.021626 (0.094273)
MP_total	0.039257 (0.106636)
SI_total	0.052039 (0.075503)
PI_total	0.000879 (0.081007)
educ_share	-0.000538 (0.001110)
gdp_pc	0.000002** (0.000001)
Constant	0.196439*** (0.062870)
Observations	27
R^2	0.748369
Adjusted R^2	0.655662
Residual Std. Error	0.030251 (df = 19)
F Statistic	8.072464*** (df = 7; 19)
Note:	*p<0.1; **p<0.05; ***p<0.01
	OLS estimates with 27 country observations. All models use country-level data. Standard errors in parentheses.

Appendix Table 9: Determinants of Support for Climate Investment

	Dependent variable:		
	Support for Climate Investment (SCI)		
Constant	0.495*** (0.025)	factor(age_range)2	-0.030** (0.013)
Climate Knowledge Index (CKI)	0.179*** (0.019)	factor(age_range)3	-0.121*** (0.013)
factor(country_name)Belgium	0.046*** (0.014)	factor(age_range)4	-0.139*** (0.013)
factor(country_name)Bulgaria	0.025 (0.016)	factor(age_range)5	-0.114*** (0.014)
factor(country_name)Croatia	0.075*** (0.017)	factor(gender)2	0.004 (0.006)
factor(country_name)Cyprus	0.117*** (0.024)	factor(children_18)2	-0.027*** (0.008)
factor(country_name)Czech Republic	-0.030** (0.014)	factor(education_range)2	-0.004 (0.010)
factor(country_name)Denmark	0.136*** (0.014)	factor(education_range)3	0.032*** (0.010)
factor(country_name)Estonia	-0.049*** (0.019)	factor(politics)2	0.052*** (0.019)
factor(country_name)Finland	0.036** (0.015)	factor(politics)3	0.048*** (0.016)
factor(country_name)France	0.095*** (0.014)	factor(politics)4	0.009 (0.017)
factor(country_name)Germany	0.055*** (0.014)	factor(politics)5	-0.051*** (0.014)
factor(country_name)Greece	0.038*** (0.014)	factor(politics)6	-0.057*** (0.016)
factor(country_name)Hungary	0.053*** (0.014)	factor(politics)7	-0.091*** (0.017)
factor(country_name)Ireland	0.063*** (0.014)	factor(politics)8	-0.100*** (0.017)
factor(country_name)Italy	0.122*** (0.014)	factor(politics)9	-0.089*** (0.021)
factor(country_name)Latvia	-0.041** (0.019)	factor(politics)10	-0.108*** (0.018)
factor(country_name)Lithuania	-0.024 (0.018)	factor(income_decile)2	0.006 (0.014)
factor(country_name)Luxembourg	0.060*** (0.019)	factor(income_decile)3	0.007 (0.016)
factor(country_name)Malta	0.204*** (0.027)	factor(income_decile)4	-0.039** (0.016)
factor(country_name)Poland	0.031** (0.014)	factor(income_decile)5	0.019 (0.016)
factor(country_name)Portugal	0.040*** (0.014)	factor(income_decile)6	0.009 (0.015)
factor(country_name)Romania	0.080*** (0.014)	factor(income_decile)7	0.019 (0.015)
factor(country_name)Slovakia	-0.019 (0.018)	factor(income_decile)8	0.007 (0.013)
factor(country_name)Slovenia	0.091*** (0.018)	factor(income_decile)9	0.025* (0.013)
factor(country_name)Spain	0.126*** (0.014)	factor(income_decile)10	0.031*** (0.012)
factor(country_name)Sweden	0.072*** (0.015)		
factor(country_name) Netherlands	0.045*** (0.015)		
Observations	19,067		
R^2	0.096		
Adjusted R^2	0.093		
Residual Std. Error	0.279 (df = 19013)		
F Statistic	37.939*** (df = 53; 19013)		
Note:	*p<0.1; **p<0.05; ***p<0.01		

Weighted OLS regression with country fixed effects. Robust (HC1) standard errors in parentheses.