

THE IMPACT OF CLIMATE-BASED NATURAL DISASTERS

Natural disasters across the world are being exacerbated by climate change. LSE research highlights the proportions of people experiencing stress about climate change around the world, as well as demonstrating the impact of natural disasters on individuals' political preferences and actions.

Addressing the consequences of climate change requires political leadership, but so far political leaders are not prioritising environmental issues or committing to long-term prevention. As climate change increasingly serves as a source of stress and natural disasters prompt protests across the world, political elites may not be able to ignore the changes in voter behaviour, and the entry of younger candidates into politics who will champion these issues.

CLIMATE-RELATED NATURAL DISASTERS

- Droughts
- Floods
- Wildfires
- Storms
- Extreme temperatures

MAP KEY

% of people reporting experiencing a lot of stress about climate change in the past 7 days

NO DATA	0-9	10-19	20-29	30-39	40-49	50+ OVER
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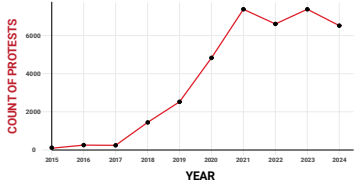
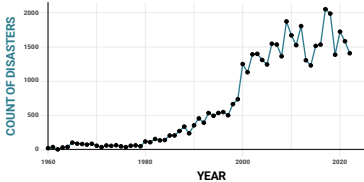
No. of protests

<=250	<=500	<=750	<=1000	1000+
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No. of climate-based disasters

1-25	26-50	51-100	101-250	251+
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Map data 2021-22. Stress data from the Gallup Stress Index. Disasters data from the Emergency Events Database and Geocoded Disasters, extended by manual geocoding. Protests data from Armed Conflict Location & Event Data Project.



Numbers of protests and climate disasters globally

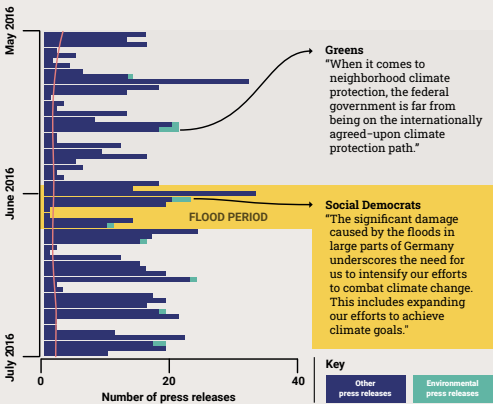


RESEARCH BY KATE LAFFAN, NILS MALLOCK, GEORGE MELIOS, ANTÓNIO VALENTIM. SCAN TO HEAR MORE

CASE STUDY: EUROPE

Has political attention increased towards environmental issues?

An analysis of 260,000 press releases by 68 political parties in nine European countries between 2010 and 2020 revealed that natural disasters have not increased attention towards environmental issues outside of Green parties, for whom the effect lasts for a week.



This graph shows the daily number of press releases in Germany one month before and after a harrowing flood in 2019, which resulted in multiple deaths and immense damages.

The pink curve shows daily average attention toward the environment. Of the 1,093 press releases in this timeframe (n = 1,093), 2.3% fall into the Environment category.

Extreme weather events lead to no statistically significant changes in the attention parties pay to environmental issues



When do political protests influence citizens' behaviour and do they have electoral consequences?

Analysis of European elections reveals that repeated exposure to environmental protests increases the vote share of Green parties.

Since the summer of 2018, many countries worldwide saw the rise of environmental protests, championed by Greta Thunberg and which became known as **Fridays For Future (FFF)** protests. The movement gained global attention and FFF is often credited with putting the environmental issue back on the agenda, mobilising youth and motivating policy-making.

At its highest, it is estimated that over 1 million people protested and went on strike across over 100 countries in a single day.

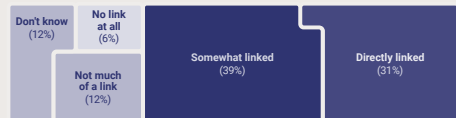
Municipalities exposed to FFF protests saw a sizeable increase in the vote share of the Greens of 2-2.5 percentage points.

Repeated exposure to these protests (up to 15x) increased the magnitude of their effects.

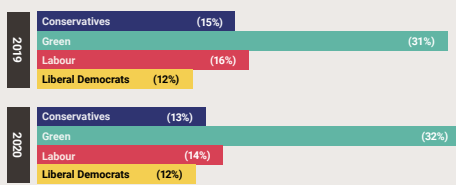
Can Green parties capitalise on the impact on voters?

Matching geospatial data with voting records, research shows that whilst floods in England did have an impact on voter preferences at local elections, the Green Party were unable to capitalise on this through local candidate allocation due to a lack of resources.

Extreme weather events – and floods in particular – have been shown to potentially impact voters' positions on the environment and their voting behaviour.



Voters' perceived association between floods and climate change (Source: YouGov, 2020)



Voters' perceived ownership of environmental issues (Source: Ipsos Mori, 2019 & 2020)

Local incumbents suffer a **loss of around 1.5 percentage points** after floods, but smaller parties do not have the resources to invest in canvassing or research to learn about and capitalise on voter preferences.

*Imperfect Information and Party Responsiveness: Evidence from Extreme Weather Events and the Green Party in England', António Valentim (working paper)

CASE STUDY: BRAZIL

Does climate change affect who runs for office, and how?

Using a novel dataset of flooding events and mayoral candidates in Brazil (2000-2020), research shows that **younger and less educated candidates are more likely to run for office** in the aftermath of natural disasters.

Evidence did not show that this was due to candidates' environmental preferences. Rather, in interviews, candidates agreed that floods significantly impacted their decision to run, but noted how these events often exacerbate and intensify the urgency of addressing other pressing voter concerns.

'Climate Change and Political Entry: Evidence from Brazilian Municipal Elections', António Valentim and Guilherme Fasolin (working paper)



*Extreme Weather Events Do Not Increase Political Parties' Environmental Attention', António Valentim, Tim Wapenhans, Lukas Stotzer and Heike Klöner, Nature Climate Change (2024)

*Repeated Exposure and Protest Outcomes: How Fridays for Future Protesters Influenced Voters', António Valentim (working paper)