

Climate Change in the News, 2019-2026: Attention, Geography and Tone of Global Climate Coverage, and How It Compares with Research and Invention

Fliar BI · Prism Research Layer · Working paper, October 2026 · Dataset and code: github.com/fliarbi/prism-news-api · Licence CC BY-NC 4.0

Abstract

We measure how climate change was covered in a global news index from January 2019 to July 2026, using 430,668 de-duplicated climate change articles, and set that coverage beside 115,815 research papers (2015-2025) and 370 patent families (2015-2024) on the topic. Six results stand out:

1. **Falling share.** Climate change took 39.33 of every 10,000 news articles in 2019 and 22.94 in 2025, a 41.67% fall, although raw counts rose from 46,442 to 61,912.
2. **Conference rhythm.** The share peaked in November 2021, the month of COP26, at 73.78 per 10,000. On average 30.23% of each year's coverage appears in September, October and November.
3. **Geography.** Azerbaijan, host of COP29, is the most over-represented country (lift 45.14), and the United Arab Emirates, host of COP28, is also over-represented (5.71). The United States (0.69) and India (0.71) are under-represented. Within India, Meghalaya (2.32), Himachal Pradesh (2.14) and Assam (2.08) lead; within the United States, Hawaii (7.24), Alaska (5.56) and Vermont (3.78).
4. **Tone and urgency.** 44.5% of climate change articles are negative in tone (all news: 33.6%), and 73.5% are rated critical priority (all news: 42.6%). Negative articles outnumbered positive ones in 2019 but not in 2025.
5. **Vocabulary.** 83.06% of matched articles say "climate change", 11.49% "global warming" and 7.44% "climate crisis".
6. **Research and invention.** Climate change papers grew from 12.97 to 21.75 per 10,000 papers between 2015 and 2025 (1.68 times), while news share fell. Patent families naming the topic grew 4.35-fold from 2015 to 2024, and China's office held 50.0% of their office filings.

Findings stated for citation

- **F1.** Climate change's share of news fell 41.67% from 2019 to 2025 (39.33 to 22.94 per 10,000 articles).
- **F2.** The share fell 44.32% in 2020 against 2019, then recovered to 38.02 per 10,000 in 2021.
- **F3.** November 2021 was the peak month, at 73.78 articles per 10,000.
- **F4.** Between 2019 and 2025, an average of 30.23% of each year's coverage appeared in September-November.
- **F5.** Azerbaijan (45.14) and the United Arab Emirates (5.71) were the most over-represented conference hosts.

- **F6.** The United States' share of located coverage (33.55%) was 0.69 times its share of all news; India's (9.36%) was 0.71 times.
- **F7.** Vanuatu (24.99), Greenland (15.83) and Antarctica (6.16) were the most over-represented other places.
- **F8.** 44.5% of climate change articles were negative in tone, 1.32 times the all-news share.
- **F9.** 73.5% were rated critical priority, 1.73 times the all-news share.
- **F10.** Climate activism and youth movements appeared in 19.67% of themed articles, 101 times its rate in all news.
- **F11.** 7.44% of matched articles used the phrase "climate crisis".
- **F12.** Climate change papers rose 1.68-fold as a share of all papers between 2015 and 2025.
- **F13.** Patent families naming climate change grew 4.35-fold between 2015 and 2024; China's office held 50.0% of office filings.
- **F14.** Within India, Meghalaya (2.32), Himachal Pradesh (2.14), Assam (2.08) and Odisha (2.05) had the most over-represented coverage.
- **F15.** Within the United States, Hawaii (7.24), Alaska (5.56), Vermont (3.78) and New Mexico (3.2) had the most over-represented coverage.
- **F16.** Coverage as a share of Brazil's news rose 2.48-fold from 2023 to 2025; the United Arab Emirates' fell to 0.07 times its 2023 level.

1. Introduction

Climate change is a long-running issue rather than a single event. Its place in the news depends on scientific reports, international negotiations, protests, extreme weather and competing stories. News coverage shapes what the public and policy-makers treat as urgent, yet coverage is rarely measured as data in its own right. Surveys record opinion. Bibliometric studies record research. Few sources record attention, meaning how much of the news climate change takes, and when, where and in what tone.

This paper and its dataset do that. They combine three records for one topic: a global news index, research papers and patents. Each comparison uses a denominator, so that growth in the index or in publishing is not mistaken for growth in interest. The companion dataset publishes an article-level sample (54,053 rows) and full coverage tables, so every figure here can be re-derived. The [Prism News API](#) serves the full history.

2. Data and methods

News. The Prism news index holds articles from outlets worldwide; non-English articles are indexed in English translation. Each article carries its opening text (the first few sentences), a primary location, a graded tone label, an editorial priority rating (1–9), themes, keywords and named organisations. We count unique article identifiers; repeated rows for the same article are removed. When this release was built, 92.88% of the index was readable, so all counts are lower bounds.

Matching. An article is about climate change when its opening text contains *climate change*, *global warming*, *climate crisis*, *climate emergency* or *global heating* as whole words. Three kinds of match are excluded:

- refrigerant and product specifications ("global warming potential", "GWP");

- heating-equipment trade listings ("global heating, ventilation and air conditioning");
- market-research listings with forecast and growth-rate boilerplate.

These removed 845 of 431,513 raw matches (0.2%). The terms themselves are specific, so few exclusions were needed. One reviewer read 40 randomly drawn matched openings. 37 referred to climate change as a phenomenon, issue or policy field (precision 92.5%), and in 24 (60%) climate change was the main subject. The three false matches named climate change only in the title of a ministry, department or unit.

Measures. Coverage over time is expressed per 10,000 articles in the index that month or year, because the index grew from 11,807,177 articles in 2019 to 26,990,006 in 2025. Seasonality uses each year's within-year month shares, averaged over the complete years 2019–2025. Geography, tone, priority and themes use January 2023 – July 2026. Geography is expressed as lift: a place's share of climate change articles divided by its share of all located articles. Place tags derived from ordinary words ("Congress", "Earth", "Winter", "Cloud", "Mobile", "Hurricane"; 714 words in all) were treated as unlocated in every location field, which removed 15.3% of city-tagged articles.

Research and patents. Research papers are de-duplicated articles and reviews (2000–2025) with *climate change*, *global warming*, *climate crisis* or *climate emergency* in the title. Repository deposits and "global warming potential" are excluded. Patent families (2006–2024) use *climate change* or *global warming* in the title, are counted once per filing office, and exclude refrigerant specifications.

3. Results

3.1 How much and when

The index holds 430,668 climate change articles from January 2019 to July 2026. Raw counts rose from 46,442 in 2019 to 61,912 in 2025, but the share of all news fell: 39.33 per 10,000 in 2019, 34.82 in 2023 and 22.94 in 2025 (Table 1). That is a 41.67% fall in share over six years. The 2020 value, 21.9 per 10,000, was 44.32% below 2019, in the first year of the COVID-19 pandemic. The share recovered to 38.02 in 2021 and has declined every year since 2023. The highest monthly share was November 2021, the month of the COP26 conference in Glasgow, at 73.78 per 10,000, followed by September 2019 (66.93), the month of the global climate strikes, and October 2021 (62.36) (Figure 1).

Year	Climate change articles	All articles in index	Per 10,000
2019	46,442	11,807,177	39.33
2020	35,538	16,230,014	21.9
2021	65,695	17,281,220	38.02
2022	65,251	19,115,515	34.14
2023	71,334	20,484,506	34.82
2024	62,235	23,311,896	26.7
2025	61,912	26,990,006	22.94

Table 1. Climate change articles per year and as a share of the index. 2026 (January–July) is partial and omitted.

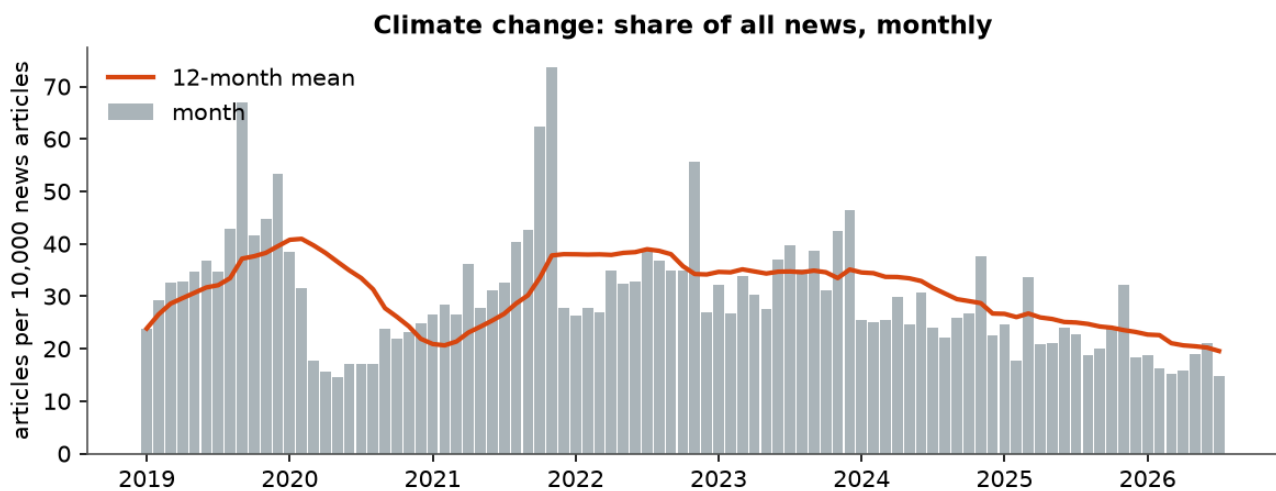


Figure 1. Climate change coverage as articles per 10,000 news articles, monthly, January 2019 – July 2026. Bars are months; the line is the 12-month mean.

Coverage is uneven across the year (Figure 2). September (9.82%), October (9.11%) and November (11.3%) together hold 30.23% of a typical year's climate change articles, against 25% for an even spread. September is the month of the UN General Assembly, and November the month in which most of the period's annual Conferences of the Parties took place; the match is one of timing, not a measured effect. February is the quietest month (7.02%).

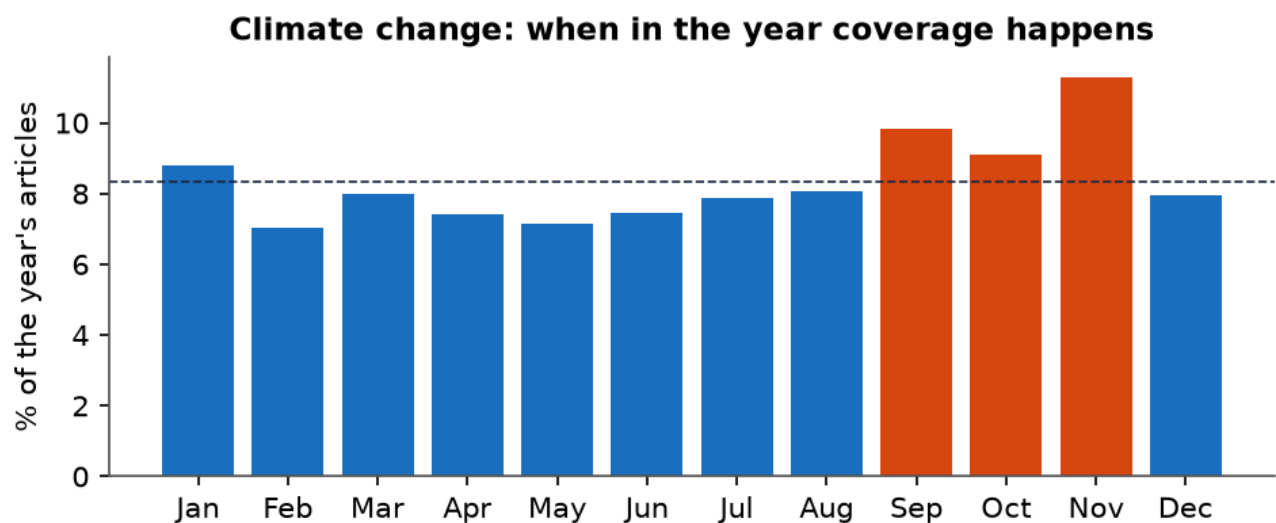


Figure 2. Share of each year's climate change articles published in each month, averaged over 2019–2025. Dashed line = an even spread (8.3% per month).

Vocabulary shifts slowly. Of all matched articles, 83.06% use "climate change", 11.49% "global warming" and 7.44% (32,053 articles) "climate crisis". "Climate emergency" appears in 8,565 articles and "global heating" in 1,121.

3.2 Where

Between January 2023 and July 2026, 90,297 climate change articles carried a primary location. The United States holds the largest raw share (33.55%), but its lift is 0.69: climate change takes a smaller share of American news than of news overall. India's share (9.36%) comes with a lift of 0.71, and the United Kingdom (6.2%, lift 1.06) sits close to its weight. The most over-represented countries are the hosts of recent conferences, small island and polar places, and East Africa (Table 2, Figure 3). Apart from the hosts, Vanuatu (24.99),

Greenland (15.83), Antarctica (6.16), Malawi (5.2), Kenya (4.38) and Ethiopia (4.17) lead. Israel (0.32), South Korea (0.54) and Russia (0.55) are the most under-represented.

Country	Located articles	Share %	Lift vs all news
United States	30,293	33.55	0.69
India	8,448	9.36	0.71
United Kingdom	5,600	6.2	1.06
United Arab Emirates	3,358	3.72	5.71
Australia	3,330	3.69	1.72
France	2,896	3.21	1.62
Canada	2,886	3.2	1.49
China	2,623	2.9	1.1
Brazil	1,618	1.79	2.07
Azerbaijan	1,335	1.48	45.14
Kenya	867	0.96	4.38
Antarctica	283	0.31	6.16
Greenland	174	0.19	15.83
Vanuatu	162	0.18	24.99

Table 2. Leading countries and most over-represented places in located climate change news, January 2023 – July 2026, with lift against all located news.

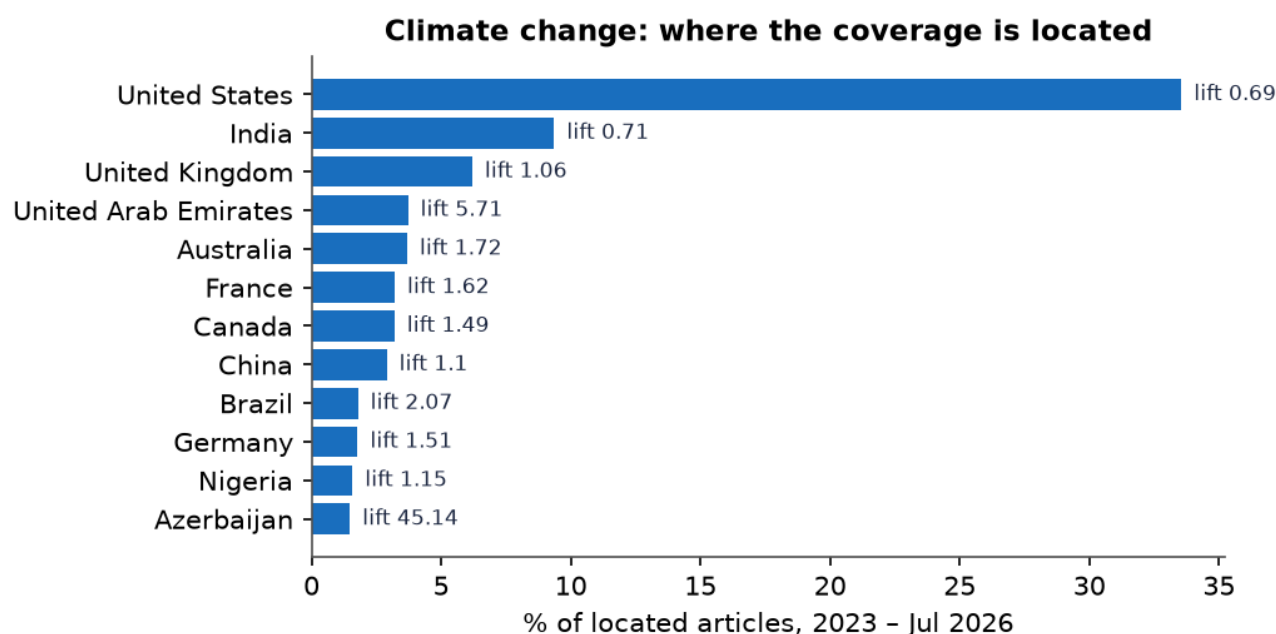


Figure 3. Leading countries by share of located climate change articles, 2023 – Jul 2026, labelled with lift against all located news.

3.3 Geo intelligence: continents, states and shifting attention

The world map (Figure 4) shows the pattern at a glance. Climate change is over-represented in the news of Greenland, East Africa, North Africa, Turkey, Brazil and Peru, Southeast Asia and Oceania, and under-represented in the United States, India, Russia and Iran. By continent, Africa (2.03), Oceania (1.97), South America (1.39) and Europe (1.28) are over-represented, Asia (1.11) is slightly over its weight, and North America (0.69) is under-represented (Figure 7, left).

Climate change: which countries over- and under-cover the topic

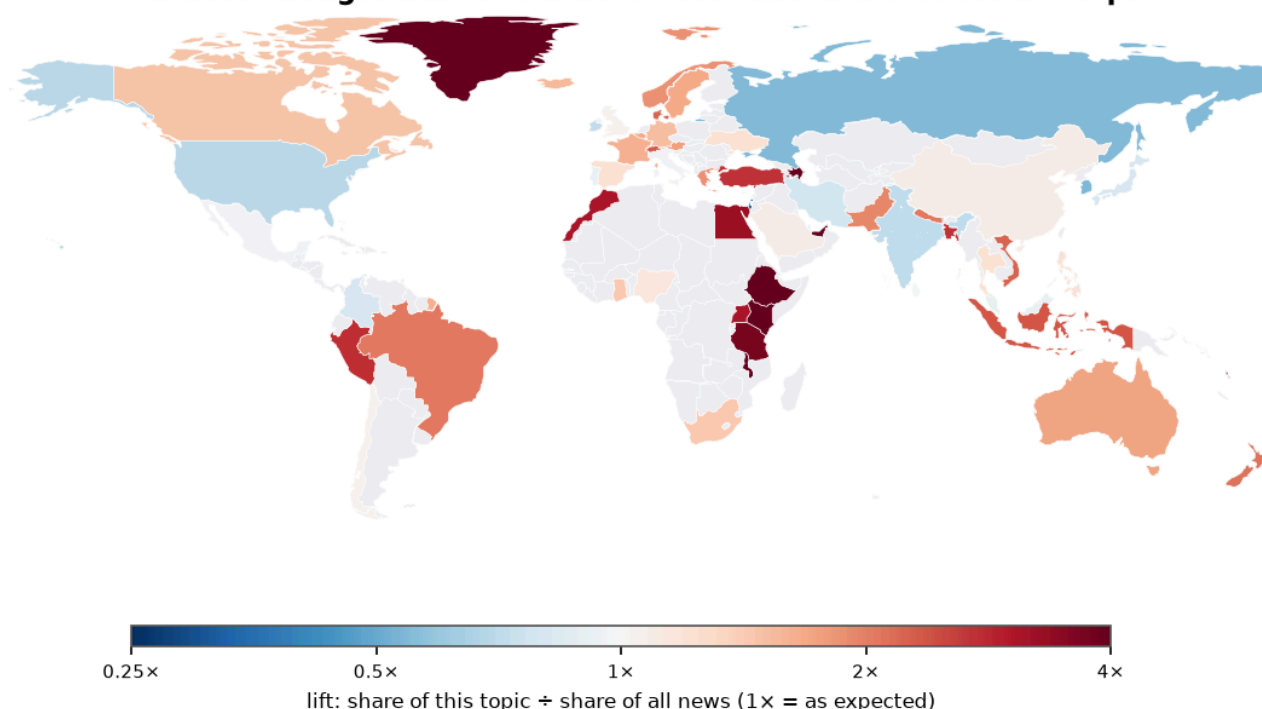


Figure 4. Lift of each country's share of located climate change articles, January 2023 – July 2026 (red = over-represented, blue = under-represented, grey = fewer than 100 articles). India is drawn with its official outline.

Within countries, the picture is sharper (Table 3). In India, 5,484 located articles show coverage concentrated in the north-east, the eastern coast and the Himalaya. Measured against each state's share of Indian news, Meghalaya (2.32), Himachal Pradesh (2.14), Assam (2.08), Odisha (2.05), Goa (2.05) and West Bengal (1.9) are the most over-represented. Telangana (0.49), Uttar Pradesh (0.51), Haryana (0.59), Jammu and Kashmir (0.61) and Punjab (0.62) are under-represented (Figure 5). Delhi holds the most articles (832) at a lift of 1.17. In the United States (21,527 located articles), Hawaii (7.24), Alaska (5.56), Vermont (3.78), New Mexico (3.2) and Montana (2.98) lead by lift. New Jersey (0.1), Pennsylvania (0.39), South Carolina (0.51) and Indiana (0.56) are far below their weight in American news (Figure 6). Texas, which an earlier build placed among the leading states, holds 1,345 articles at a lift of 1.06 once place tags from ordinary words are removed. States with fewer than 50 articles are not ranked.

India: state	Articles	Lift	United States: state	Articles	Lift
Meghalaya	60	2.32	Hawaii	470	7.24
Himachal Pradesh	158	2.14	Alaska	243	5.56
Assam	187	2.08	Vermont	86	3.78
Odisha	232	2.05	New Mexico	242	3.2
Goa	62	2.05	Montana	227	2.98
West Bengal	363	1.9	Rhode Island	83	2.49
Kerala	202	1.51	Oregon	427	1.99
Uttar Pradesh	356	0.51	Pennsylvania	503	0.39
Telangana	94	0.49	New Jersey	404	0.1

Table 3. States with the highest and (last rows) lowest lift in climate change coverage, January 2023 – July 2026. Lift = the state's share of the country's located climate change articles ÷ its share of all located news from that country.

Climate change: states of India by lift

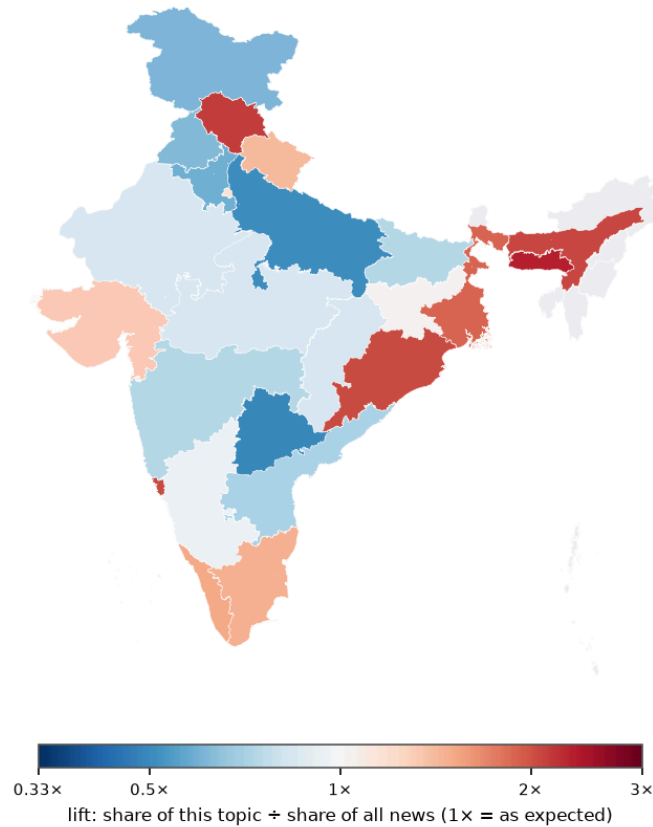


Figure 5. Lift of each Indian state's share of located climate change articles against its share of all located Indian news, January 2023 – July 2026. Official outline; Ladakh is drawn within Jammu and Kashmir in the boundary file used.

Climate change: states of United States by lift

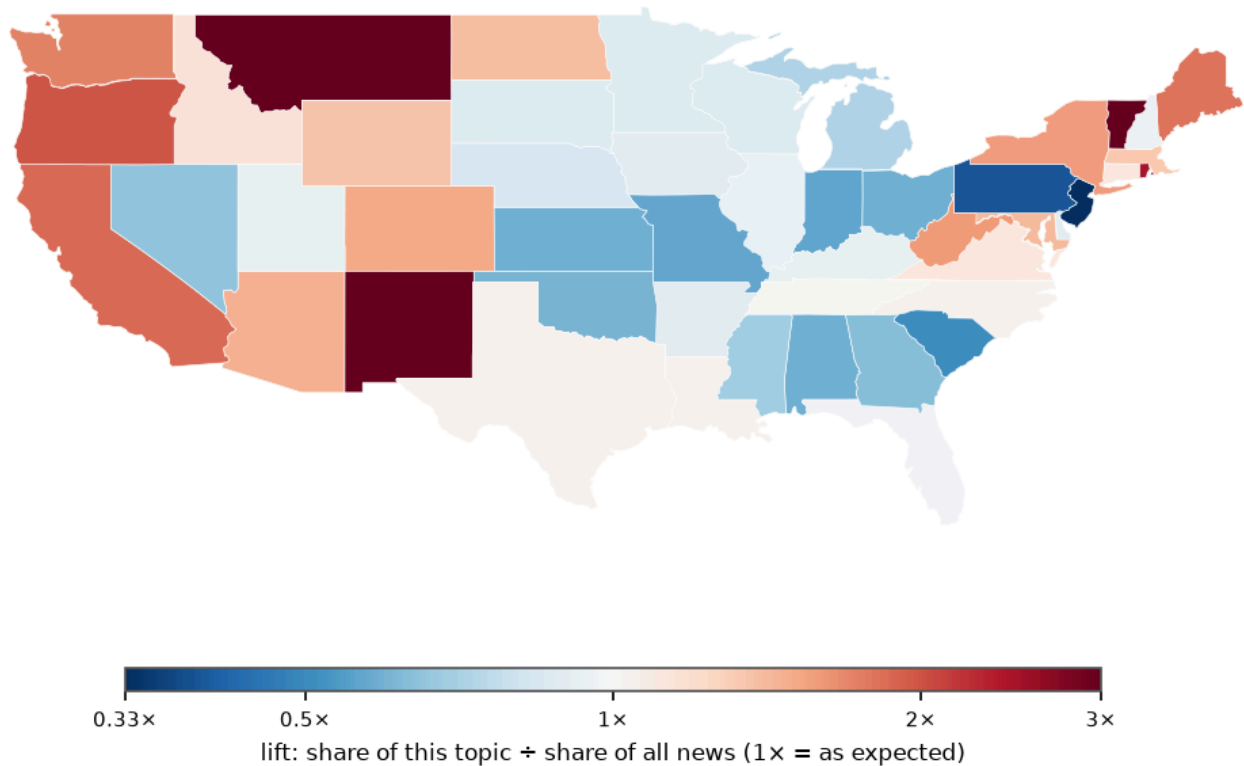


Figure 6. Lift of each US state's share of located climate change articles against its share of all located US news, January 2023 – July 2026.

Attention also moves between countries from year to year, and the largest swings fall in conference-host years (Figure 7, right). Measured as climate change articles per 10,000 of each country's located news, the United Arab Emirates reached 372.48 in 2023, the year it hosted COP28, and fell to 25.39 in 2025 (0.07 times). Azerbaijan rose from 27.93 in 2023 to 1,860.35 in 2024, the year of COP29 in Baku, and stood at 726.64 in 2025. Brazil, host of COP30 in 2025, rose from 26.57 to 65.84 between 2023 and 2025 (2.48 times), and Turkey rose from 38.65 to 126.8 (3.28 times). Ukraine (0.33), France (0.34), China (0.42) and Kenya (0.43) fell most over the same years, after the United Arab Emirates.

Tone differs by country even after allowing for each country's news overall. American climate change coverage is 59.6% negative against 33.1% for all American news. The gap is also wide in Spain (60.5% against 30.3%), Italy (58.0% against 29.4%) and Greece (75.0% against 31.2%). In several countries of the Global South the topic is less negative than the national news: Iran (29.7% against 72.5%), Nigeria (25.0% against 44.4%), Ghana (25.6% against 43.3%), Kenya (30.3% against 43.4%), Bangladesh (43.7% against 56.8%) and India (36.2% against 41.2%). The reason for the difference is not tested here.

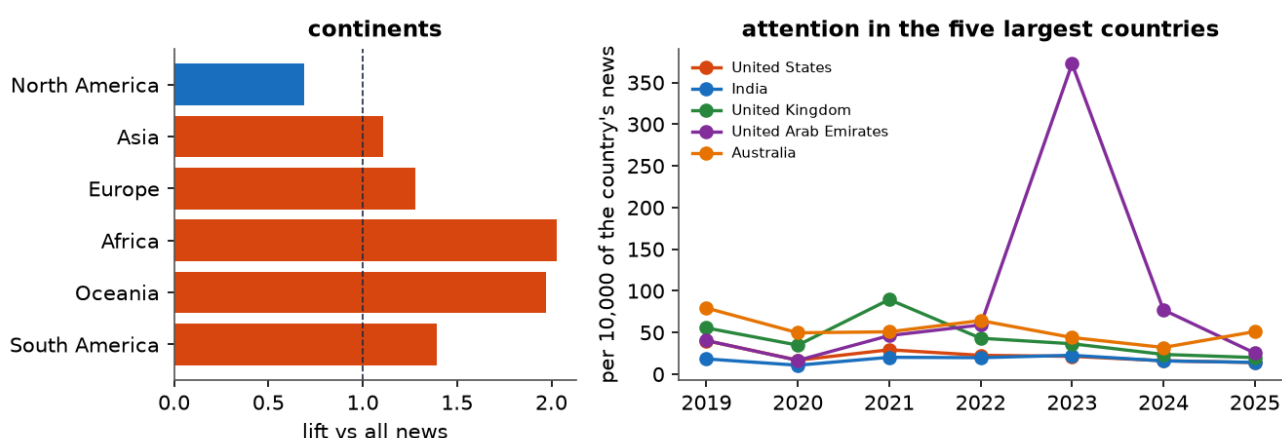


Figure 7. Left: lift by continent, January 2023 – July 2026. Right: climate change articles per 10,000 of each country's located news, 2019–2025, for the five countries with the most articles.

3.4 Tone, urgency and themes

Climate change coverage is more negative and more urgent than news in general (Figure 8). Among articles with a tone label, 44.5% are negative, against 33.6% across the index (1.32 times), while 52.2% are positive. The balance shifted over the period: negative articles outnumbered positive ones in 2019 (27,623 against 18,473) but not in 2025 (27,348 against 33,382). Editorial priority puts 73.5% of climate change articles at critical level (7 or higher), against 42.6% of all news (1.73 times).

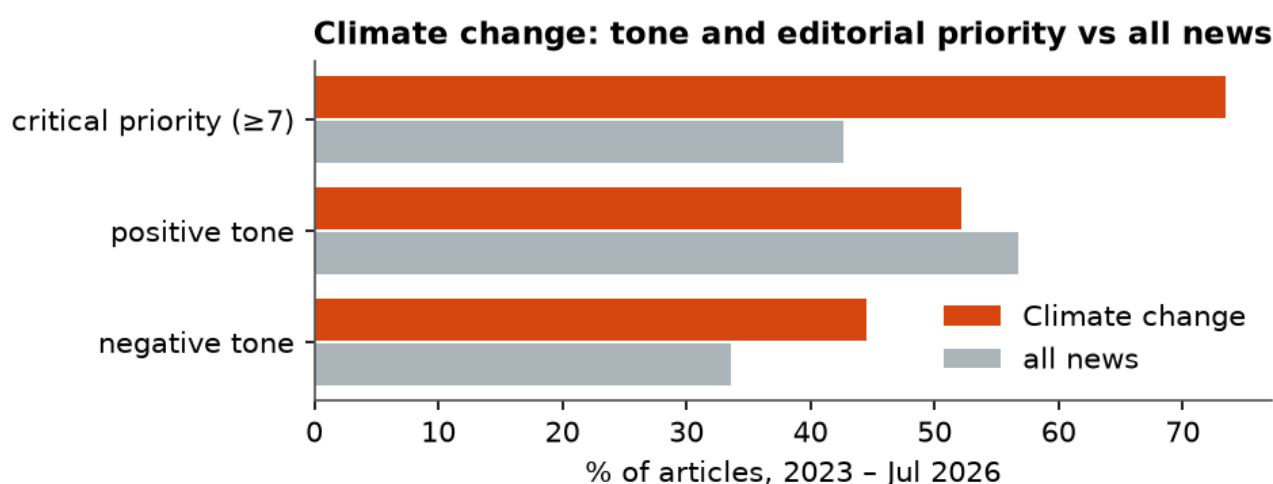


Figure 8. Tone and the share rated critical priority, climate change articles vs all news, 2023 – Jul 2026.

Themes show what climate change stories are about (Table 4). Activism and youth movements are the most common (19.67% of themed articles), followed by mitigation strategies (17.11%) and renewable energy (8.93%). The most topic-specific themes are effects on indigenous communities, climate migration, climate education and climate justice, each between 173.76 and 184.28 times as frequent as in all themed news.

Theme	Articles	Share %	Lift
climate activism and youth movements	28,148	19.67	101.0
climate change mitigation strategies	24,495	17.11	63.15
renewable energy sources and technologies	12,777	8.93	53.29
climate policy and international agreements	5,344	3.73	145.78
effects on indigenous communities and traditional knowledge	1,110	0.78	184.28
climate migration and social displacement	1,833	1.28	178.79
climate change education and public awareness	1,872	1.31	178.65
climate justice and equity considerations	1,399	0.98	173.76

Table 4. The most frequent themes and those most specific to climate change coverage (lift against all themed news), January 2023 – July 2026.

The organisations named most often include the Intergovernmental Panel on Climate Change (3,293 articles), the United States Environmental Protection Agency (3,285), the World Bank (2,461) and the National Oceanic and Atmospheric Administration (2,070). Generic labels ("renewable energy", "ghg", "esg") and wire services also rank high, so the list reflects labelling and sourcing habits as much as actors.

3.5 Research attention and invention

Research on climate change grew faster than the scientific literature. Papers with the topic's terms in the title rose from 12.97 per 10,000 papers in 2015 to 21.75 in 2025, a 1.68-fold increase in share. Between 2015 and 2025, 115,815 such papers were published, and 180,179 since 2000. The most-cited include the scenario framework for climate research [1, 7], work on drought under global warming [2], on mountain water supplies [3], on food security [4], on biodiversity [5], on coral bleaching [6] and on extinction risk [8].

News attention does not track research attention (Figure 9). Research share rose every year from 2017 to 2025, while news share fell in 2020, recovered in 2021 and has declined since 2023.

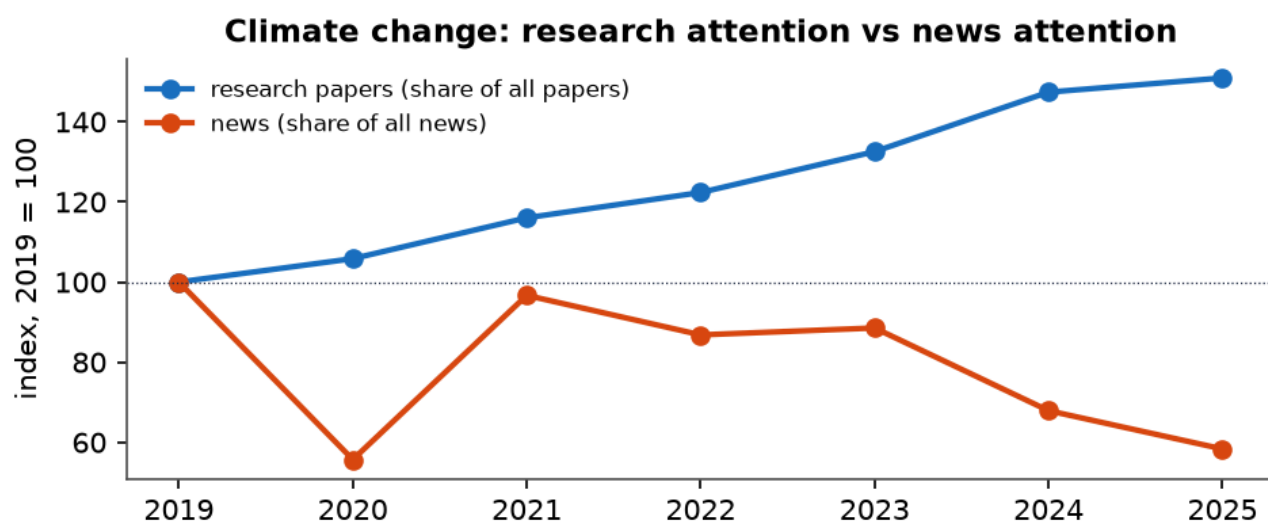


Figure 9. Research papers with climate change terms in the title (share of all papers) and climate change news (share of all news), each indexed to 2019 = 100.

Few patents name climate change in their title, because inventions are classed by function. Still, the count rose from 17 families in 2015 to 74 in 2024 (4.35 times). Of the office filings of the 370 families from 2015 to 2024, China's office holds 50.0%, followed by South Korea (11.8%) and the United States (10.3%) (Figure 10). The leading technology classes are data processing for business and administration (G06Q, 84 families), computing (G06F, 44) and meteorology (G01W, 16), which is consistent with carbon-accounting and climate-risk software more than hardware.

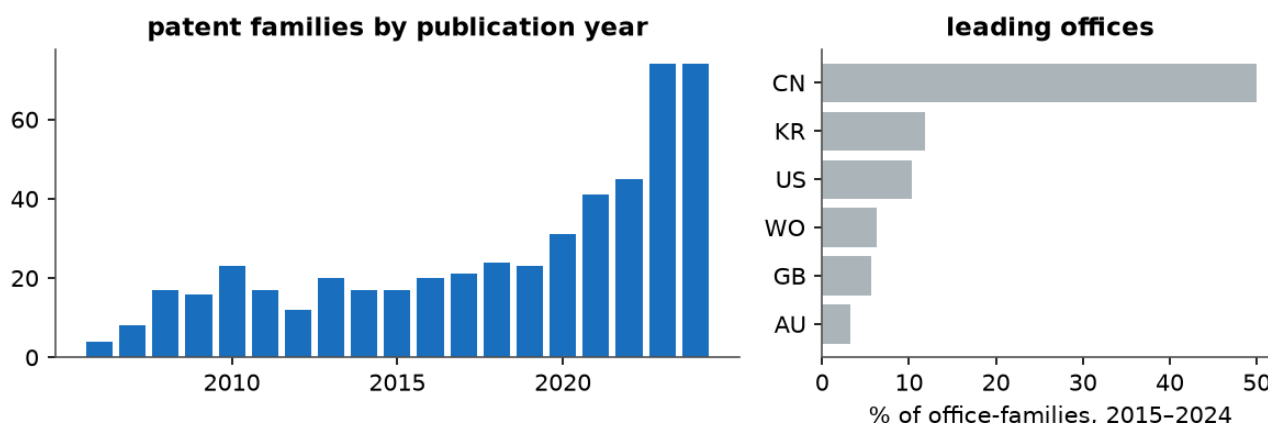


Figure 10. Patent families with climate change terms in the title by publication year (left) and the leading filing offices, 2015-2024 (right).

4. Discussion

Three points matter for anyone who uses news as a record of climate change. First, coverage measures attention, and attention has fallen. Raw counts suggest steady interest, but climate change took a smaller share of the index in 2025 than in any complete year except 2020. Second, coverage peaks coincide with the diplomatic calendar. The peak month, the autumn season and the surges in the United Arab Emirates, Azerbaijan and Brazil fall in the months and years of the annual conferences; this is a match of timing, not a measured effect. Third, raw shares mislead on geography. The United States and India produce the most located articles, but climate change takes a smaller part of their news than of news overall. Small, exposed places (Vanuatu, Greenland) and East African countries give it the most weight.

Research, invention and news run on different clocks. Research share grows steadily. Patents that name the topic are few and mostly software. News follows the conference calendar. The dataset lets researchers link the three, for example to test whether a conference host's attention outlasts the conference year.

5. Limitations

- **Index availability.** 92.88% of the index was readable at build time, so counts are lower bounds. Shares and lifts are less affected, because the missing part is spread across topics.
- **Coverage after May 2026.** The index thins after May 2026, so 2026 is partial and is excluded from year comparisons.
- **Matching.** Matching uses the article opening. Articles that mention climate change only later are missed, and 7.5% of matches are not about climate change (mostly ministry names).
- **Machine labels.** Location, tone, priority and themes are machine-labelled. The city field is noisy and is not analysed.
- **Place tags from ordinary words.** Place tags derived from ordinary words ("Congress", "Earth", "Winter") were treated as unlocated, which removed 15.3% of city-tagged articles; located counts are therefore smaller, and some genuine places that share a name with an ordinary word are lost.
- **Outlet mix.** The index over-represents English-language outlets. Small national baselines (Azerbaijan, Vanuatu, Greenland) make their lifts sensitive to which outlets are collected.
- **Research and patent counts.** These match titles only. Patent counts are small and cover only inventions that name the topic.

Data availability

The dataset (article sample, monthly, country and state tables, research and patent tables, all metrics) is released under CC BY-NC 4.0 with this paper. The sample holds 54,053 of 430,573 matched articles to 31 July 2026. Full article text, headlines, publishers, later articles and other topics are served by the Prism News API: <https://github.com/fliarbi/prism-news-api> (base URL <https://radar-api.fliarbi.com/news>). A worked query: `prism-news trends "climate change" --since 2019-01-01 --until 2026-07-31 --granularity monthly`.

References

1. Richard H. Moss et al. (2010). The next generation of scenarios for climate change research and assessment. *Nature*. <https://doi.org/10.1038/nature08823>
2. Aiguo Dai (2012). Increasing drought under global warming in observations and models. *Nature Climate Change*. <https://doi.org/10.1038/nclimate1633>
3. Walter W. Immerzeel et al. (2010). Climate Change Will Affect the Asian Water Towers. *Science*. <https://doi.org/10.1126/science.1183188>
4. Tim Wheeler et al. (2013). Climate Change Impacts on Global Food Security. *Science*. <https://doi.org/10.1126/science.1239402>
5. GT Pecl et al. (2017). Biodiversity redistribution under climate change: Impacts on ecosystems and human well-being. *Science*. <https://doi.org/10.1126/science.aai9214>

6. Terry P. Hughes et al. (2017). Global warming and recurrent mass bleaching of corals. *Nature*. <https://doi.org/10.1038/nature21707>
7. Brian C. O'Neill et al. (2013). A new scenario framework for climate change research: the concept of shared socioeconomic pathways. *Climatic Change*. <https://doi.org/10.1007/s10584-013-0905-2>
8. Mark C. Urban (2015). Accelerating extinction risk from climate change. *Science*. <https://doi.org/10.1126/science.aaa4984>
9. Fliar BI (2026). *Climate Change in the News 2019-2026: article-level dataset and coverage tables*. Prism News API. <https://github.com/fliarbi/prism-news-api>