

Drought in the News, 2019-2026: Timing, Geography and Tone of Global Drought 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 drought was covered in a global news index from January 2019 to July 2026, using 108,105 de-duplicated drought articles, and set that coverage beside 51,502 research papers (2015–2025) and 4,482 patent families (2015–2024) on drought. Six results stand out:

1. **Peaks and decline.** Drought took its largest share of news in August 2022, the month of the 2022 European drought, at 27.88 articles per 10,000. Its annual share fell 48.2% from 2022 to 2025 and ended below the 2019 level.
2. **Weak seasonality.** July to September hold 30.08% of a typical year's drought articles, against 25% for an even spread, so coverage is spread across the year.
3. **Geography.** The United States holds 43.65% of located drought news but is slightly under-represented (lift 0.9). India is under-represented (0.63). Somalia (56.25), Zambia (31.08), Zimbabwe (24.8) and Ethiopia (15.48) are the most over-represented countries. Within India, Karnataka (4.46) leads; within the United States, New Mexico (4.51), Nebraska (3.25) and Arizona (2.74).
4. **Tone and urgency.** 58.7% of drought articles are negative in tone (all news: 33.6%), and 78.7% are rated critical priority (all news: 42.6%).
5. **Measurement.** 12.63% of raw matches for drought vocabulary were removed as sporting ("title drought"), figurative ("IPO drought") or headline-digest uses. Counting them would inflate coverage.
6. **Research and invention.** Drought papers grew from 5.35 to 9.73 per 10,000 papers between 2015 and 2025, a 1.82-fold rise in share. Drought patent families grew 2.65-fold from 2015 to 2024, and China's office held 87.4% of office-family pairs.

Findings stated for citation

- **F1.** Between 2019 and 2025, July–September held 30.08% of each year's drought news on average, against 25% for an even spread; August was the largest month (11.4%).
- **F2.** Drought took a 38.3% smaller share of news in 2020 than in 2019 (4.77 vs 7.73 per 10,000 articles).
- **F3.** August 2022 was the peak month for drought news, at 27.88 articles per 10,000.
- **F4.** Drought's share of news fell 48.2% from 2022 to 2025, to 30.3% below its 2019 level.
- **F5.** Somalia (56.25), Zambia (31.08), Zimbabwe (24.8) and Ethiopia (15.48) were the most over-represented countries in drought news.

- **F6.** India's share of located drought news (8.27%) was 0.63 times its share of all news. The United States' (43.65%) was 0.9 times.
- **F7.** 58.7% of drought articles were negative in tone, 1.75 times the all-news share.
- **F8.** 78.7% of drought articles were rated critical priority, 1.85 times the all-news share.
- **F9.** El Niño and La Niña appeared in 4.37% of themed drought articles, 90.19 times their frequency in all news.
- **F10.** Drought-tolerant crop varieties were the most topic-specific theme (lift 310.05).
- **F11.** 12.63% of raw drought-vocabulary matches were removed as sporting, figurative or digest uses.
- **F12.** Drought papers rose 1.82-fold as a share of all papers between 2015 and 2025.
- **F13.** Drought patent families published per year grew 2.65-fold between 2015 and 2024; China's office held 87.4% of office-family pairs.
- **F14.** Within India, Karnataka (4.46), Andhra Pradesh (2.59) and Maharashtra (1.55) had the most over-represented drought coverage.
- **F15.** Within the United States, New Mexico (4.51), Nebraska (3.25) and Arizona (2.74) had the most over-represented drought coverage.
- **F16.** Among the ten countries with the most located drought articles, drought's share of national news fell from 2023 to 2025 in all but the United Kingdom; France fell most in relative terms, from 22.94 to 4.39 per 10,000.

1. Introduction

Drought differs from most natural hazards. It has no clear start or end. It builds over months, crosses borders and does its damage through farms, rivers, reservoirs, forests and food prices. News is one of the few public records that follows a drought as it develops: where water is short, who is restricting use, which harvests fail, and when rain returns.

News coverage also shapes what the public and policy-makers treat as urgent. Yet coverage is rarely measured as data in its own right. Drought monitors record dryness. Bibliometric studies record research. Few sources record attention, meaning how much of the news drought 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 (26,913 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 drought when its opening text contains *drought*, *droughts* or *megadrought* as whole words. Three families of matches are excluded:

- sporting uses, such as "title drought", "playoff drought" or "a 31-season drought", and uses within a short span of team, league or competition names;
- figurative business and culture uses, such as "IPO drought", "funding drought" or "talent drought";
- headline digests that list unrelated stories.

Together these removed 15,627 of 123,732 raw matches (12.63%). One reviewer read 40 randomly drawn matched openings. 38 used drought in its climatic, hydrological or agricultural sense (precision 95%), and in 19 (47.5%) drought was the main subject. The two false positives were unrelated local stories in which drought was only a passing aside. The index also carries research-paper abstracts: 11 of the 40 items were abstracts, mostly on drought stress in crops and trees. They use the word in the right sense and are kept, but they raise the weight of agricultural science in the themes.

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 country's share of drought articles divided by its share of all located articles. Place tags derived from ordinary words (714 words such as "Congress", "Earth", "Winter", "Cloud", "Mobile" and "Hurricane") were treated as unlocated in every location field, which removed 15.3% of city-tagged articles. In that window, 22,520 of 59,277 drought articles (38.0%) carried a primary country.

Research and patents. Research papers are de-duplicated articles and reviews (2000–2025) with a drought term in the title; repository deposits are excluded. Patent families (2006–2024) use titles containing drought or the phrases drought-resistant, drought-tolerant, drought tolerance and drought resistance, and are counted once per filing office.

3. Results

3.1 How much and when

The index holds 108,105 drought articles from January 2019 to July 2026. Raw counts rose from 9,131 in 2019 to a high of 19,889 in 2022, then fell to 14,536 in 2025 (Table 1). As a share of all news, drought went from 7.73 per 10,000 in 2019 to 4.77 in 2020, 38.3% lower, in the year pandemic coverage expanded. It then rose to 10.4 in 2022 and 9.53 in 2023, and fell to 5.39 in 2025. That is 48.2% below 2022 and 30.3% below 2019. The highest monthly share was August 2022, at 27.88 per 10,000 (4,378 articles), the month of the 2022 European drought (Figure 1). July 2022 was the second highest, at 15.07.

Year	Drought articles	All articles in index	Per 10,000
2019	9,131	11,807,177	7.73
2020	7,746	16,230,014	4.77
2021	12,057	17,281,220	6.98
2022	19,889	19,115,515	10.4
2023	19,529	20,484,506	9.53
2024	17,023	23,311,896	7.3
2025	14,536	26,990,006	5.39

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

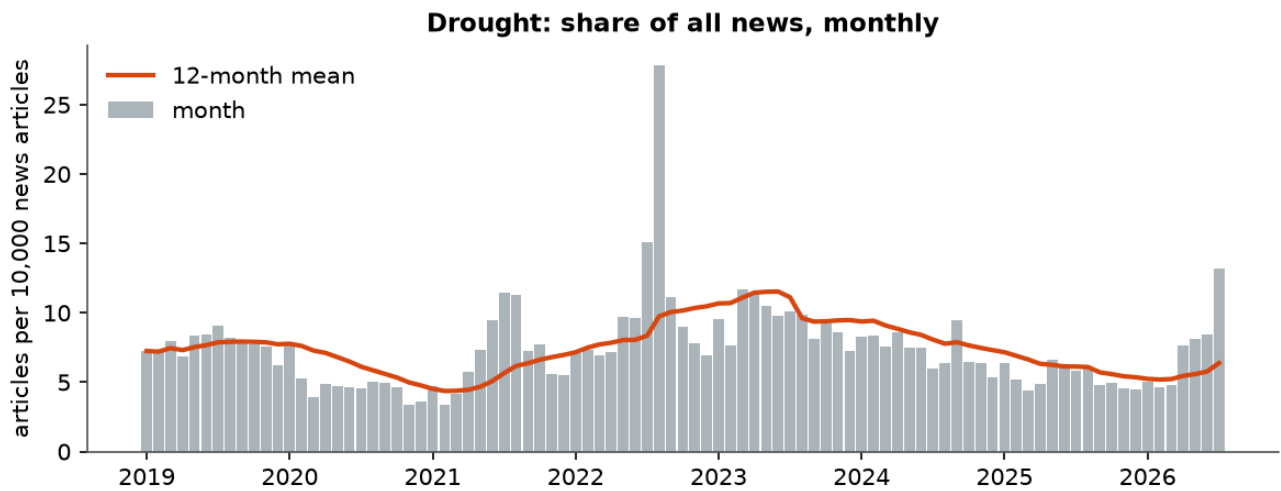


Figure 1. Drought coverage as articles per 10,000 news articles, monthly, January 2019 – July 2026. Bars are months; the line is the 12-month mean. The July 2026 bar rests on 64 articles and is not comparable.

Drought coverage is only mildly seasonal (Figure 2). August (11.4%) is the largest month, followed by July (9.61%), January (9.41%) and September (9.07%). July to September together hold 30.08% of a typical year's drought articles, against 25% for an even spread. December is the quietest month (6.06%). Floods and storms arrive as events, while drought builds over months, which may explain part of the flatter profile.

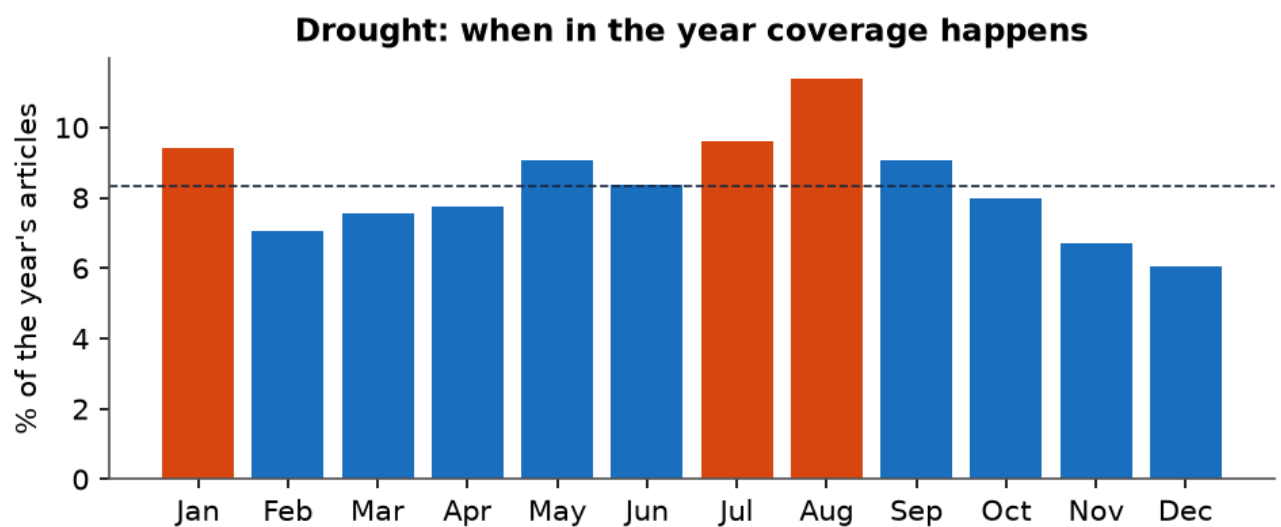


Figure 2. Share of each year's drought articles published in each month, averaged over 2019–2025. Dashed line = an even spread (8.3% per month).

3.2 Where

Between January 2023 and July 2026, 22,520 drought articles carried a primary location. The United States holds the largest raw share (43.65%), with a lift of 0.9: drought takes a slightly smaller share of American news than of news overall. India's share (8.27%) comes with a lift of 0.63. The most over-represented countries are in Africa: Somalia (56.25), Zambia (31.08), Zimbabwe (24.8), Ethiopia (15.48), Morocco (7.31) and Kenya (7.14) (Table 2, Figure 3). In the Americas, Panama (5.41), Brazil (4.01) and Argentina (3.15) have the highest lifts among countries with at least 100 located drought articles.

Country	Located drought articles	Share %	Lift vs all news
United States	9,831	43.65	0.9
India	1,862	8.27	0.63
Australia	896	3.98	1.86
Brazil	780	3.46	4.01
United Kingdom	741	3.29	0.56
France	638	2.83	1.44
Spain	624	2.77	2.84
Kenya	353	1.57	7.14
South Africa	204	0.91	2.0
Mexico	196	0.87	2.82
Zimbabwe	187	0.83	24.8
Somalia	161	0.71	56.25
Zambia	127	0.56	31.08
Morocco	126	0.56	7.31
Ethiopia	123	0.55	15.48

Table 2. Leading countries in located drought news, January 2023 – July 2026, with lift against all located news.

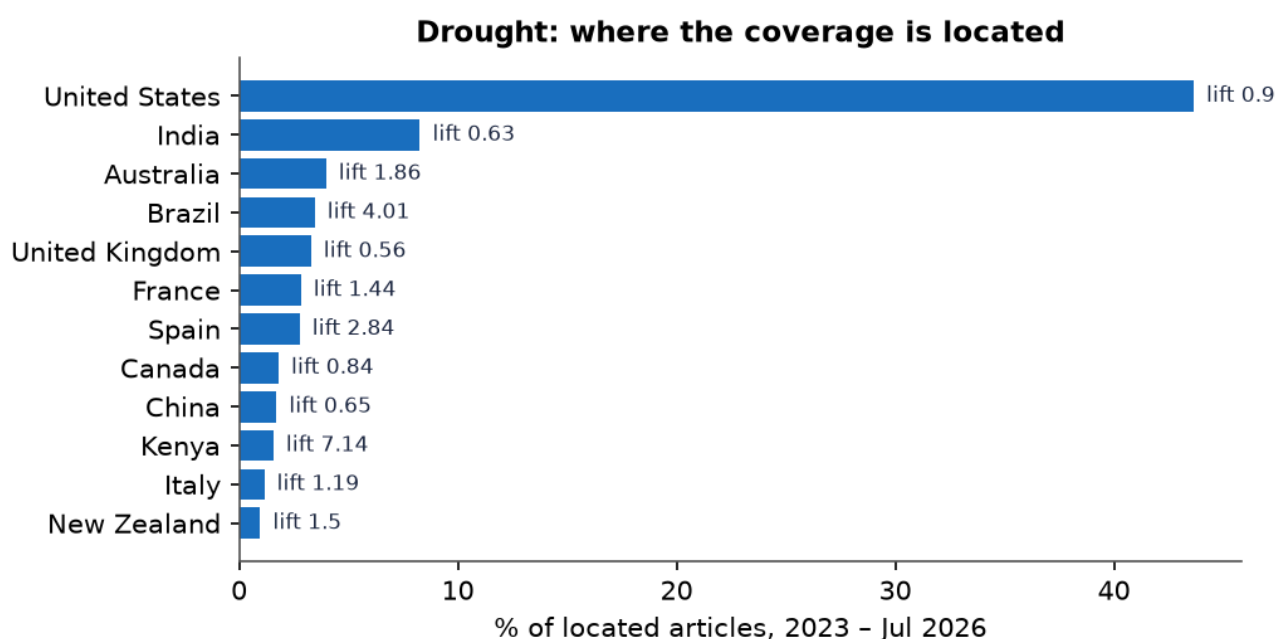


Figure 3. Leading countries by share of located drought articles, 2023 – Jul 2026, labelled with lift against all located news.

3.3 Geo intelligence: continents, states and shifting attention

The world map (Figure 4) shows the pattern at a glance. Drought is over-represented in the news of eastern and southern Africa, North Africa, South America, Mexico, Australia and southern Europe, and under-represented in India, China, the United Kingdom, Germany and Nigeria. By continent, South America (3.36), Africa (2.59) and Oceania (1.81) are over-represented. North America (0.93), Europe (0.92) and Asia (0.69) are not (Figure 7, left).

Drought: which countries over- and under-cover the topic

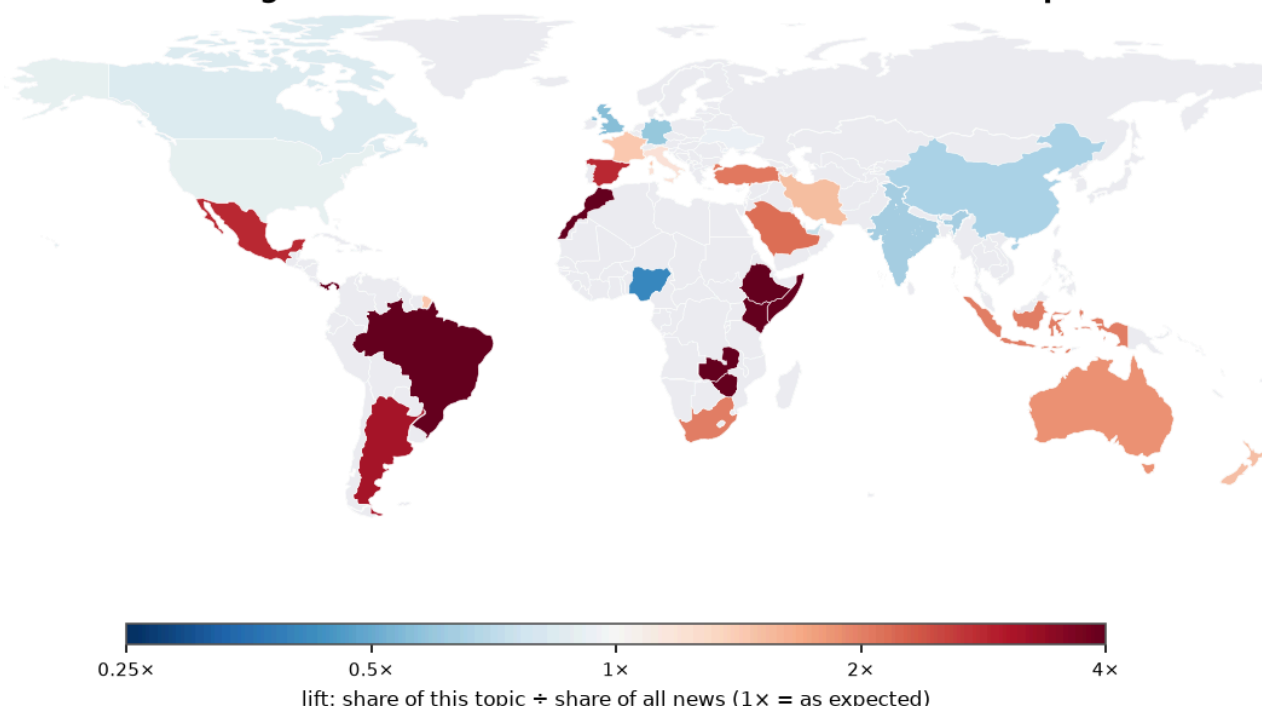


Figure 4. Lift of each country's share of located drought articles, January 2023 – July 2026 (red = over-represented, blue = under-represented, grey = fewer than 100 articles). India is drawn with its official outline.

Within countries, the picture is sharper (Table 3). India has 1,578 located drought articles. Measured against each state's share of Indian news, Karnataka (4.46), Andhra Pradesh (2.59) and Maharashtra (1.55) are the most over-represented, and Telangana (1.11) is close to its weight. Karnataka (24.71%) and Maharashtra (24.65%) together hold about half of India's located drought articles. Uttar Pradesh (0.4) and Delhi (0.44) are under-represented (Figure 5). States with fewer than 50 drought articles are left out of the text.

The United States has 8,466 located drought articles. New Mexico (4.51), Nebraska (3.25), Arizona (2.74), Kansas (2.72) and Colorado (2.45) lead by lift. The Southwest, the Rocky Mountain states and the Plains are over-represented. California, the largest single source (1,752 articles), has a lift of 2.08. New Jersey (0.08), Pennsylvania (0.39) and New York (0.58) are far below their weight in American news (Figure 6).

Rank	India: highest lift	India: lowest lift	US: highest lift	US: lowest lift
1	Karnataka (390; 4.46)	Uttar Pradesh (81; 0.4)	New Mexico (134; 4.51)	New Jersey (126; 0.08)
2	Andhra Pradesh (93; 2.59)	Delhi (90; 0.44)	Nebraska (116; 3.25)	Pennsylvania (199; 0.39)
3	Maharashtra (389; 1.55)		Arizona (139; 2.74)	New York (568; 0.58)
4	Telangana (61; 1.11)		Kansas (135; 2.72)	Michigan (114; 0.58)
5			Colorado (403; 2.45)	Oklahoma (67; 0.65)

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

with fewer than 50 drought articles are omitted; India has six states above that line.

Drought: states of India by lift

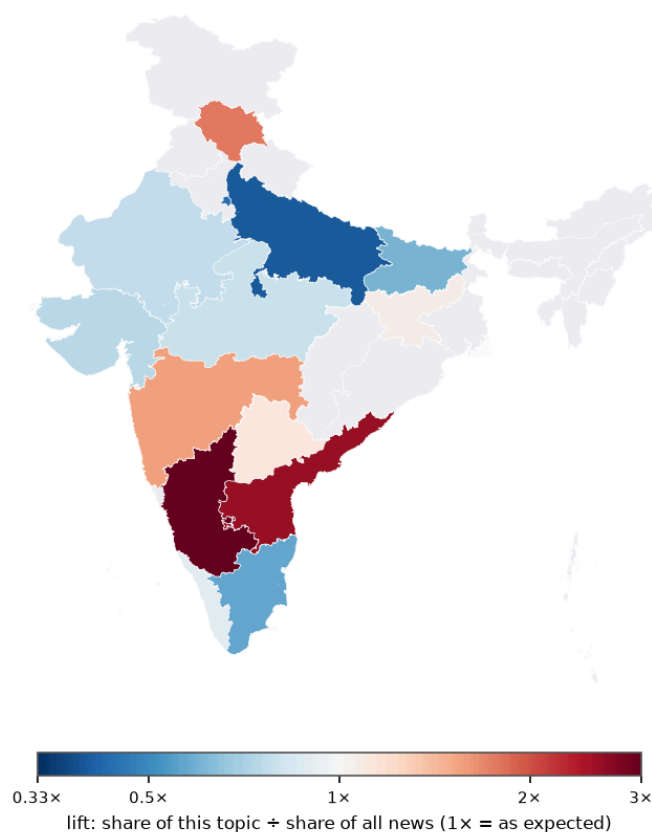


Figure 5. Lift of each Indian state's share of located drought articles against its share of all located Indian news, January 2023 – July 2026. Official outline; Ladakh is drawn within Jammu and Kashmir in the boundary file used.

Drought: states of United States by lift

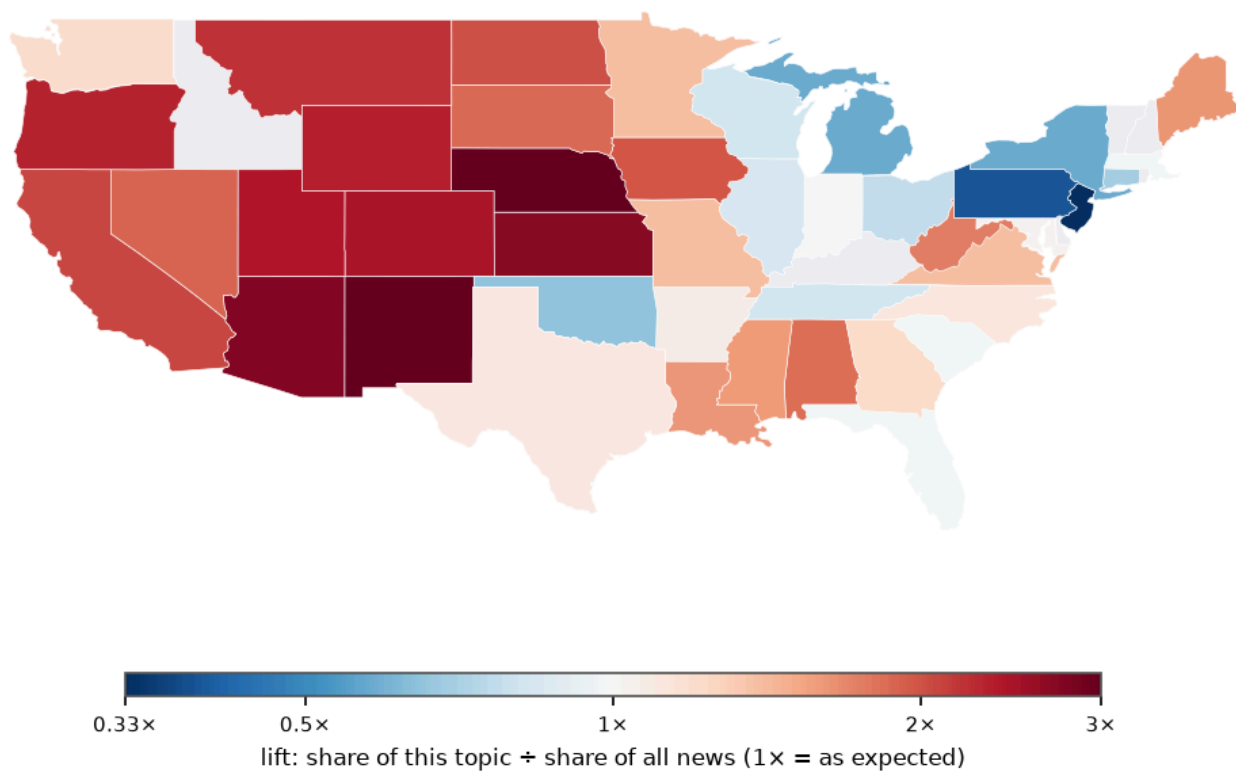


Figure 6. Lift of each US state's share of located drought articles against its share of all located US news, January 2023 – July 2026.

Attention also moves between countries from year to year (Figure 7, right). Measured as drought articles per 10,000 of each country's located news, drought's share fell from 2023 to 2025 in nine of the ten countries with the most located drought articles. France fell from 22.94 to 4.39, Spain from 28.37 to 8.2, Kenya from 75.66 to 22.71, Brazil from 25.5 to 13.0, China from 6.3 to 2.64, India from 5.37 to 2.54 and the United States from 6.68 to 4.13. Only the United Kingdom rose, from 3.4 to 4.81. Just outside that group, Italy fell from 13.29 to 2.01 and New Zealand rose from 7.0 to 12.96 (1.85 times). Among smaller news countries the swings are larger: Somalia fell from 649.01 to 93.86, while Zambia rose from 19.27 in 2023 to 442.26 in 2024 before falling to 60.87 in 2025. These swings rest on small located baselines.

Drought coverage is more negative than each country's news overall everywhere in the table, but the gap differs. Relative to each country's own baseline, it is widest in Spain (79.6% negative against 30.3%, 2.63 times), Italy (75.4% against 29.4%, 2.56 times) and China (66.1% against 27.2%, 2.43 times). It is narrowest in New Zealand (49.8% against 45.7%, 1.09 times) and Kenya (61.7% against 43.4%, 1.42 times).

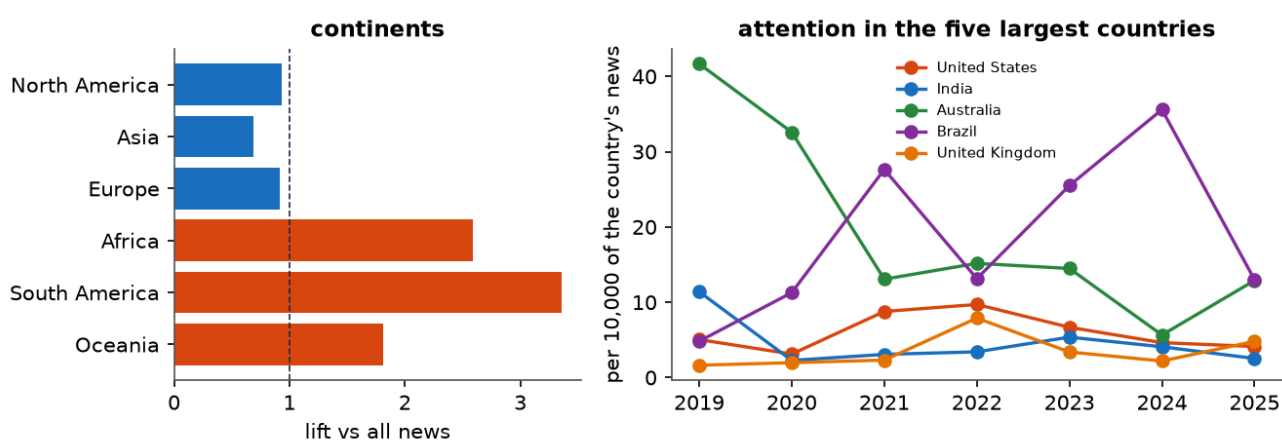


Figure 7. Left: lift by continent, January 2023 – July 2026. Right: drought articles per 10,000 of each country's located news, 2019–2025, for the five countries with the most articles.

3.4 Tone, urgency and themes

Drought coverage is more negative and more urgent than news in general (Figure 8). Among articles with a tone label, 58.7% are negative, against 33.6% across the index (1.75 times). A machine-assigned editorial priority rating puts 78.7% of drought articles at critical level (7 or higher), against 42.6% of all news (1.85 times). Part of the coverage is about adaptation, such as drought-tolerant crops, irrigation and water saving, and 38.2% of labelled drought articles are positive in tone.

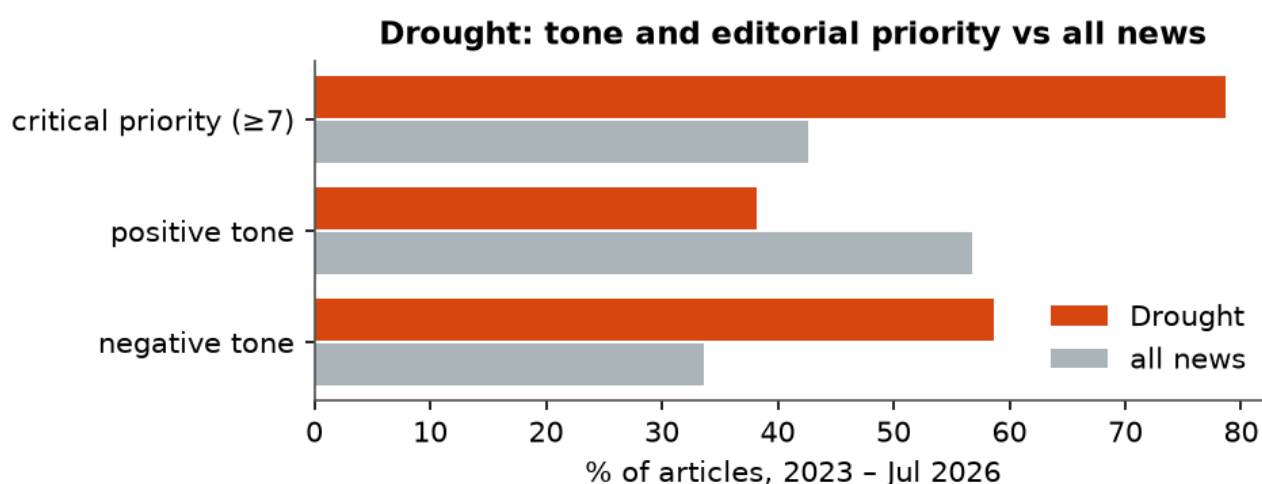


Figure 8. Tone and the share rated critical priority, drought articles vs all news, 2023 – Jul 2026.

Themes show what drought stories are about (Table 4). Drought monitoring is the most common specific theme (9.47% of themed articles), followed by agricultural weather impacts (8.84%) and water-efficient irrigation (6.93%). Drought-tolerant crop varieties have the highest lift (310.05). El Niño and La Niña appear in 4.37% of themed drought articles, 90.19 times their rate in all news. Climate migration and social displacement appear in 0.92%, at a lift of 129.11.

Theme	Articles	Share %	Lift
drought-tolerant crop varieties	937	2.64	310.05
climate impact on seed germination	697	1.97	281.41
drought conditions monitoring	3,358	9.47	279.96
agricultural weather impacts	3,136	8.84	199.43
climate change impact on food production	171	0.48	139.26
climate migration and social displacement	328	0.92	129.11
water-efficient irrigation technologies	2,458	6.93	94.49
el niño and la niña effects	1,549	4.37	90.19

Table 4. Themes most specific to drought coverage (lift against all themed news), January 2023 – July 2026.

The organisations named most often are agricultural, weather and food agencies: the United States Department of Agriculture (850 articles), the National Oceanic and Atmospheric Administration (585), the National Weather Service (368), the World Food Programme (321) and the World Meteorological Organization (311). Wire services also rank high, which reflects how drought news is sourced.

3.5 Research attention and invention

Research on drought grew faster than the scientific literature. Papers with a drought term in the title rose from 5.35 per 10,000 papers in 2015 to 9.73 in 2025, a 1.82-fold increase in its share of all papers. Between 2015 and 2025, 51,502 such papers were published, and 77,778 since 2000. The most-cited include reviews of drought concepts and indices [1, 6], work on drought under global warming [2–4] and studies of plant responses to drought and heat [5, 7].

News attention does not track research attention (Figure 9). Research share rose almost every year, while news share fell in 2020, peaked in 2022 and has fallen since.

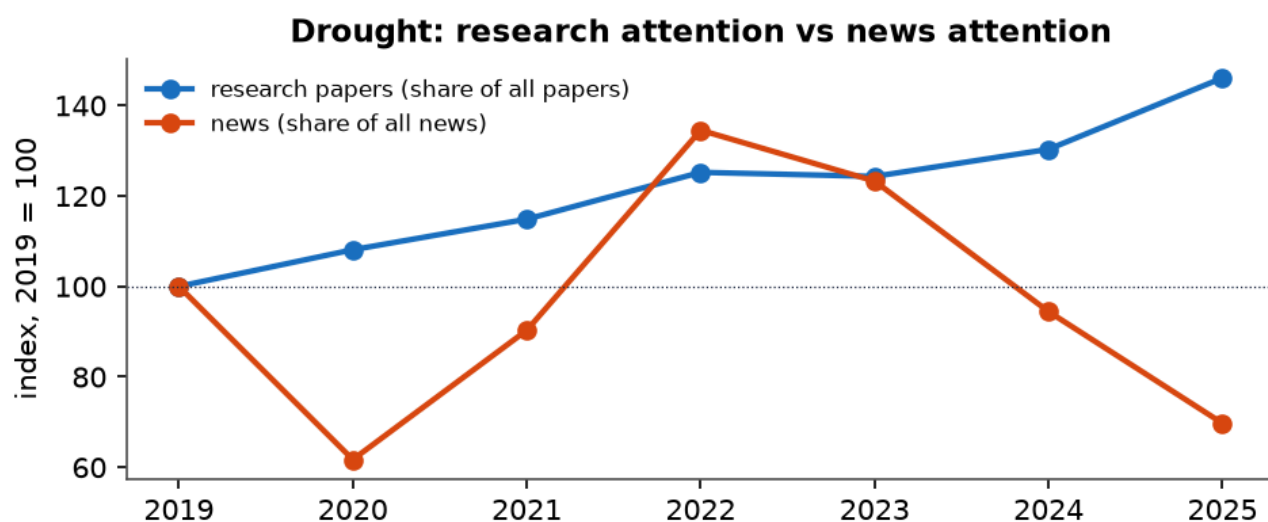


Figure 9. Research papers with drought in the title (share of all papers) and drought news (share of all news), each indexed to 2019 = 100.

Patenting rose too: 293 drought-related patent families were published in 2015 and 775 in 2024 (2.65 times). China's office holds 87.4% of office-family pairs from 2015 to 2024, followed by South Korea (4.1%) and the United States (2.7%) (Figure 10). The leading technology classes are horticulture and plant cultivation (A01G, 478 families), genetic engineering (C12N, 445) and peptides (C07K, 404), which reflects patents on drought-tolerant plants and genes.

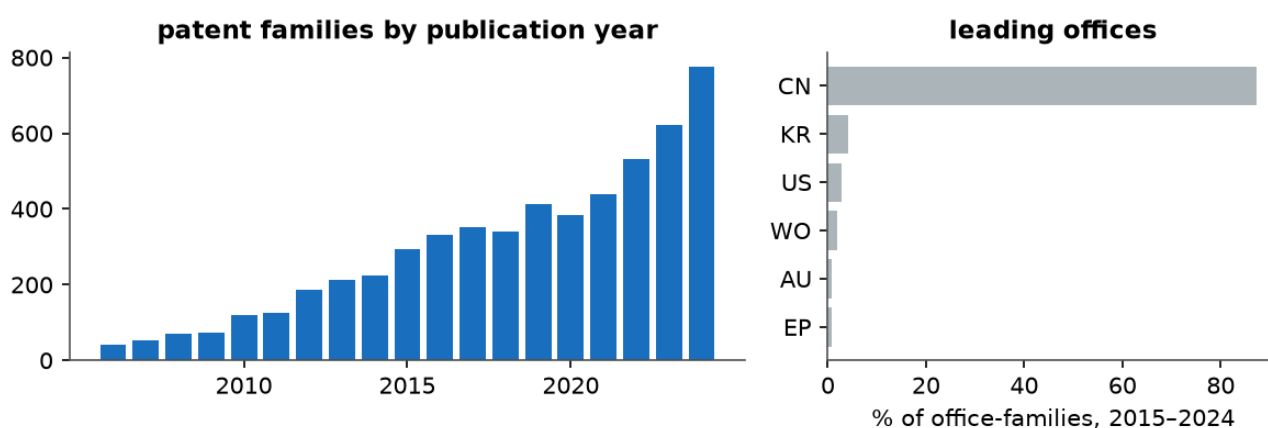


Figure 10. Drought-related patent families by publication year (left) and the leading filing offices, 2015-2024 (right).

4. Discussion

Three points matter for anyone who uses news as a record of drought. First, coverage measures attention. The 2020 trough, the August 2022 peak and the fall after 2023 may reflect what else was in the news and where the index's outlets are dense; they do not measure the number or severity of droughts. Second, raw shares mislead. The United States leads drought news in raw terms, but drought takes a larger share of attention in Somalia, Zambia, Zimbabwe, Ethiopia, Morocco and Kenya. India is under-represented at the national level, while Karnataka, Andhra Pradesh and Maharashtra are over-represented within Indian news. Third, a share of what keyword searches return as "drought news" is not about drought: sporting, figurative and digest uses made up about one in eight raw matches.

Research, invention and news run on different clocks. Research share grows steadily. Patent filings grow and are concentrated in one office, mostly on plants and genes. News follows

big drought years. The dataset lets researchers link the three, for example to test whether drought years with heavy coverage are followed by research or patent activity in the affected country.

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 if the missing part is spread evenly across topics, which is assumed, not tested.
- **Coverage after May 2026.** The index thins after May 2026, so 2026 is partial and is excluded from year comparisons. July 2026 rests on 64 articles.
- **Matching.** Matching uses the article opening. Articles that mention drought only later are missed, and 5% of matches are not about drought. Fewer than half of matches (47.5%) are mainly about drought.
- **Research abstracts.** The news index carries research-paper abstracts; 11 of 40 checked items were abstracts. They raise the weight of plant science in the themes and tone.
- **Machine labels.** Location, tone, priority and themes are machine-labelled. The city field is noisy and is not analysed. Under half of drought articles (38.0%) carry a primary country.
- **Place tags from ordinary words.** Place tags derived from ordinary words ("Congress", "Earth", "Winter", "Cloud", "Mobile", "Hurricane") were treated as unlocated, which removed 15.3% of city-tagged articles. This lowers located counts; it also removed state rankings that rested on such tags.
- **Outlet mix.** The index over-represents English-language and Northern Hemisphere outlets. This shapes both seasonality and geography.
- **Research and patent counts.** These match titles only. Office shares reflect filing practice; utility models are numerous in China.

Data availability

The dataset (article sample, monthly and country tables, research and patent tables, all metrics) is released under CC BY-NC 4.0 with this paper. The sample holds 26,913 of 108,072 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 "drought" --since 2019-01-01 --until 2026-07-31 --granularity monthly`.

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