

“The latest in a string of alarm bells about our changing climate”



Smoke from forest fires is seen over Kyzyl-Sir, Russia in August 2021. The UN Weather agency has certified a 100.4 degree reading in Verkhoyansk, Russia last year as the highest temperature ever recorded in the Arctic. Photo: Nikolay Petrov/AP.

December media attention to climate change or global warming in newspapers around the globe dropped 49% from November 2021 but remained 8% higher than a year ago (December 2020). Meanwhile, December 2021 global radio coverage of climate change or global warming dropped 67% from November 2021, while coverage in international wire services decreased 46% from the previous month.

Compared to the previous two months of coverage (October and November 2021) where media coverage of climate change or global warming reached near-record levels globally, coverage decreased in all regions: Oceania (-40%), Asia (-42%), North America (-48%), the Middle East (-50%), Latin America (-52%), Africa (-52%), and Europe (-56%). Figure 1 shows trends in newspaper media coverage at the global scale - organized into seven geographical regions

2004–2021 World Newspaper Coverage of Climate Change or Global Warming

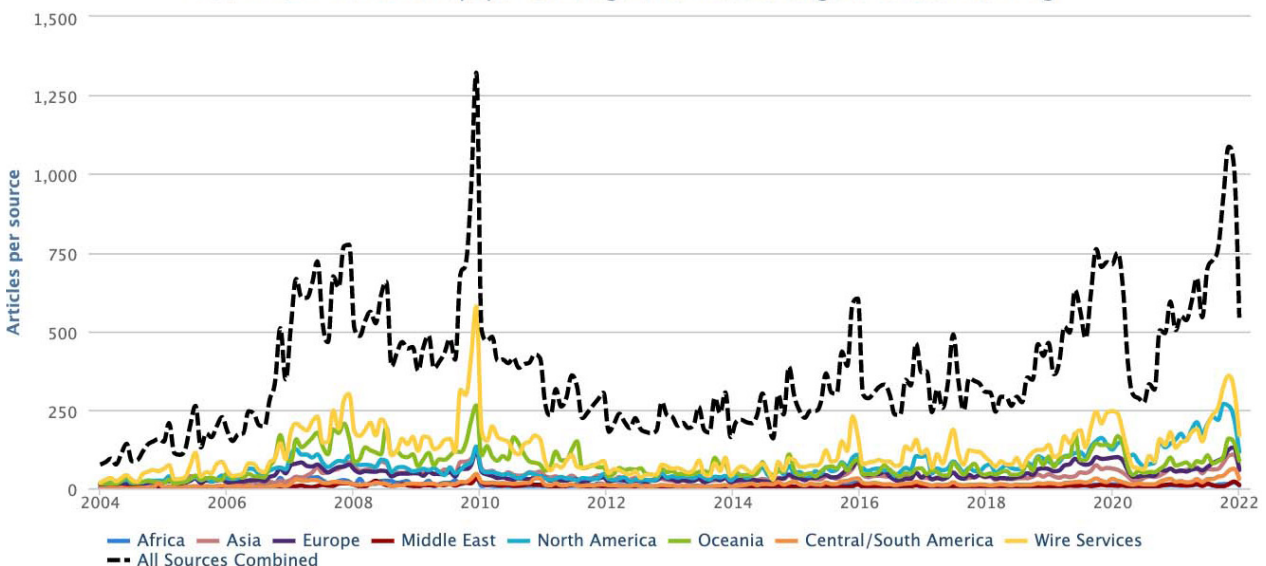


Figure 1. Newspaper media coverage of climate change or global warming in print sources in seven different regions around the world, from January 2004 through December 2021.

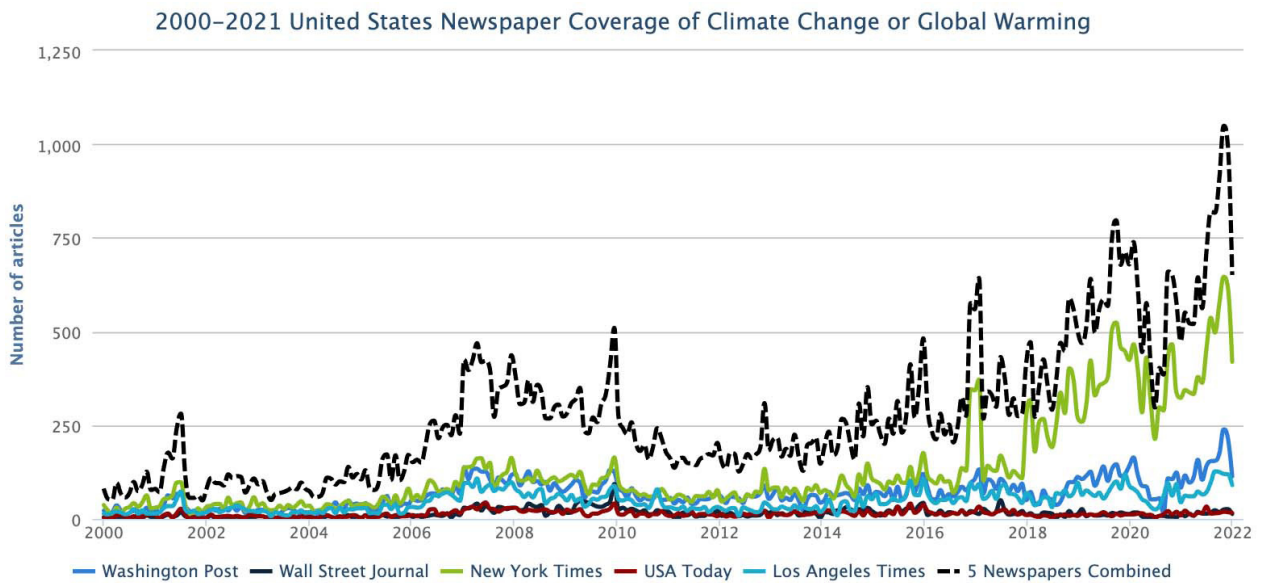


Figure 2. US print coverage of climate change or global warming from January 2000 through December 2021.

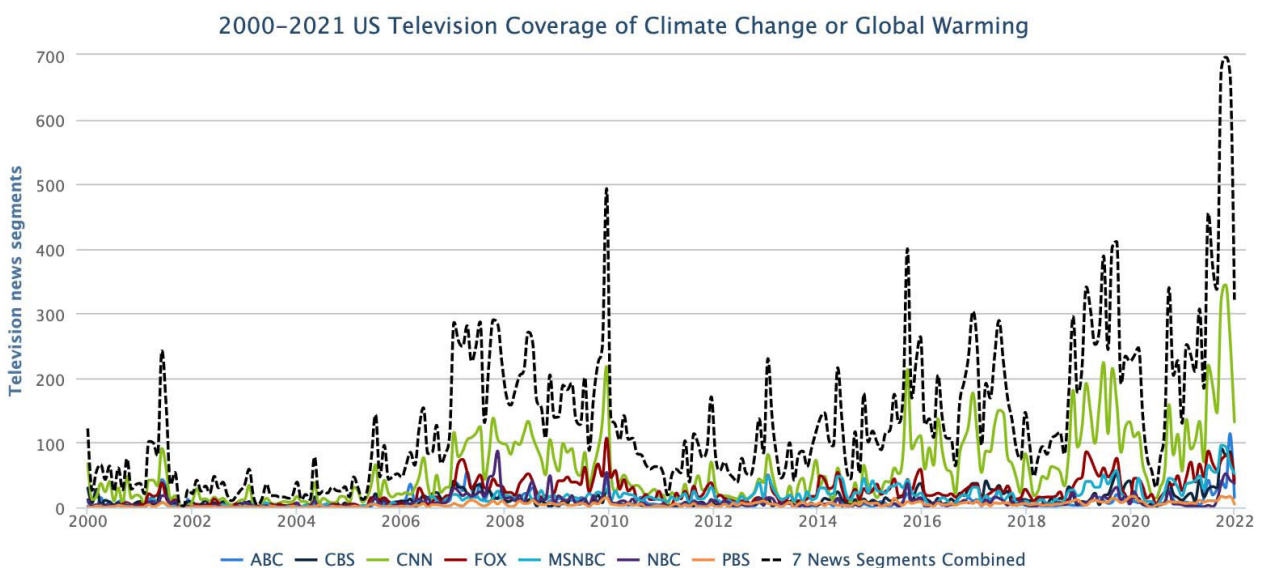


Figure 3. US television coverage of climate change or global warming from January 2000 through December 2021.

around the world - from January 2004 through December 2021.

At the country level, United States (US) print coverage decreased 35% while television coverage also decreased 52% from the previous month (see Figures 2 & 3). These are somewhat predictable dips from the highest levels of coverage on record to date that were detected in October and November 2021.

Meanwhile, compared to the previous month of November 2021, December 2021 coverage decreased in each of the 14 countries that we

at the Media and Climate Change Observatory (MeCCO) monitor: India (-27%), Sweden (-33%), Japan (-35%), Germany (-35%), New Zealand (-38%), Australia (-41%), Finland (-44%), Denmark (-48%), Spain (-51%), the United Kingdom (UK) (-62%), Canada (-65%), and Norway (-66%).

In terms of the content of coverage, to begin many climate change or global warming stories in December remained focused on *scientific* themes. Among them, media accounts of research into the year of many extreme weather disasters and links to a change climate proliferated. For example, the [World Inequality Lab report](#) was

covered by [correspondent Aimee Picchi from CBS News](#) who noted, “The globe’s 2,750 billionaires now control 3% of all wealth, up from 1% in 1995 – that makes them wealthier than half the planet...the report’s global approach underscores the challenges of coping with crises such as COVID-19 and climate change in a time of extreme concentration of wealth. Indeed, governments are becoming poorer, according to the report’s data. Public wealth – or public ownership of infrastructure such as schools and hospitals as well as financial assets (minus public debt) – stood at between 15% to 30% of total wealth in the early 1980s. But that’s dropped to “near 0% in most rich countries,” and actually is negative in the U.S., the report noted. “The current weak wealth position of governments has important implications for governments’ ability to tackle inequality in the future, as well as key challenges of the 21st century such as facing climate change,” the report said”.

Furthermore, [a report from the US Surgeon General](#) made links between climate change and mental health. This generated media attention. For example, [US National Public Radio reporter L. Carol Ritchie](#) commented that the report warns that “children and young adults were already facing a mental health crisis before the coronavirus pandemic began” and “cites gun violence, the specter of climate change, racism and social conflict as sources of stress”.

Scientific examinations by way of the annual ‘Arctic Report Card’ also garnered news attention. For example, [USA Today journalist Doyle Rice](#) reported, “An all-time Arctic high temperature of 100.4 degrees Fahrenheit, a record set in the northern Russian town of Verkhoyansk in 2020, was certified as accurate by the United Nations’ weather agency on Tuesday. The World Meteorological Organization called it the latest in a string of “alarm bells about our changing climate.” The organization also said the temperature was “more befitting the Mediterranean than the Arctic” and was set on June 20, 2020, during a heat wave that swept across Siberia and stretched north of the Arctic Circle. Global weather records can take months, if not years, to certify. Average temperatures over

Arctic Siberia reached as high as 18 degrees above normal for much of the summer last year, fueling devastating fires, driving massive sea ice loss and playing a major role in 2020 being one of the three warmest years on record”. As a second example, [Globe & Mail journalist Ivan Semeniuk](#) wrote, “The Arctic is facing a complex and ever-widening cascade of environmental changes that will increasingly challenge northern communities and affect people around the globe. That is the takeaway from this year’s Arctic Report Card, an annual compilation of observations and trends by the U.S. National Oceanic and Atmospheric Administration, with contributions from Canada and other circumpolar countries. Now, 15 years since the first report card was issued, scientists say those trends are abundantly clear in a part of the world that is warming two to three times faster than the global average owing to climate change. According to the latest report card, released Tuesday, the transformation of the Arctic is both “rapid and pronounced.” It includes long-observed effects such as reductions in sea ice and snow cover, retreating glaciers and thawing permafrost. Other, more recently observed phenomena range from a proliferation of woody shrubs and beaver dams across the tundra to a Bering Strait awash in marine garbage owing to increased shipping traffic”.

Finally, media stories tracking scientific monitoring of warming and snowfall grabbed attention. For example, [Associated Press journalist Seth Borenstein](#) wrote, “A white Christmas seems to be slowly morphing from a reliable reality to a dream of snowy holidays past for large swaths of the United States in recent decades. Analysis of 40 years of December 25 U.S. snow measurements shows that less of the country now has snow for Christmas than in the 1980s. That’s especially true in a belt across the nation’s midsection – from Baltimore to Denver and a few hundred miles farther north. And snow that falls doesn’t measure up to past depths”.

In December, there were also many [political](#) and [economic](#) themed media stories about climate change or global warming. To begin, news ran in early December about ongoing oil and gas

profits in the face of increased policy rhetoric emerging from the November United Nations (UN) climate negotiations (COP26) in Glasgow, Scotland. Media stories emerged. For example, [Guardian journalist Oliver Milman wrote](#), “The largest oil and gas companies made a combined \$174bn in profits in the first nine months of the year as gasoline prices climbed in the US, according to a new report. The bumper profit totals, provided exclusively to the Guardian, show that in the third quarter of 2021 alone, 24 top oil and gas companies made more than \$74bn in net income. From January to September, the net income of the group, which includes Exxon, Chevron, Shell and BP, was \$174bn. Exxon alone posted a net income of \$6.75bn in the third quarter, its highest profit since 2017, and has seen its revenue jump by 60% on the same period last year. The company credited the rising cost of oil for bolstering these profits, as did BP, which made \$3.3bn in third-quarter profit. ... the oil and gas industry is a leading driver of the climate crisis, the reality of which it sought to conceal from the public for decades, and is a key instigator of the air pollution that kills nearly 9 million a year, a death toll three times that of the Covid-19 pandemic in 2020. The American Petroleum Institute, a leading industry lobby group, pointed to a blog that blamed the Biden administration for policies that “significantly weaken the incentives to invest in America’s energy future” but did not answer questions on production rates of oil companies”.

Meanwhile, in the US climate policy rhetoric continued into December as the Biden Administration called for the federal government to achieve net-zero climate emissions by mid-century. This garnered media interest. For example, [Associated Press correspondent Matthew Daly reported](#), “President Joe Biden on Wednesday signed an executive order to make the federal government carbon-neutral by 2050, aiming for a 65% reduction in planet-warming greenhouse gas emissions by 2030 and an all-electric fleet of car and trucks five years later. The White House said the order shows how the government will “leverage its scale and procurement power to lead by example in tackling the climate crisis.” The order will reduce

emissions across federal operations, as part of a government-wide effort to confront climate change. “As the single largest land owner, energy consumer and employer in the nation, the federal government can catalyze private-sector investment and expand the economy and American industry by transforming how we build, buy and manage electricity, vehicles, buildings and other operations to be clean and sustainable”, the order said. It directs that government buildings use 100% carbon pollution-free electricity by 2030; that the U.S. fleet of cars and trucks become all-electric by 2035; and that federal contracts for goods and services be carbon-free by 2050. Government buildings should be carbon-free by 2045, including a 50% emissions cut by 2032”.

However, in the push-pull of politics and economics associated with climate change there was news of the last coal-fired power station being retired in Scotland in December. This generated news. For example, [The Scotsman journalist Allan Crow reported](#), “The 600ft chimney stack at the former Longannet power station was demolished. First Minister Nicola Sturgeon pushed the button to ignite the 700kg of explosives to bring down the chimney stack which was the largest free-standing structure in Scotland. It also marked the end of an era for the plant which once employed thousands of people. The Kincardine site ceased operating in 2016. In the wake of COP26 in Glasgow, ScottishPower projected Global Warming Stripes on to chimney stack and the slogan “Make Coal History” was beamed on to it”.

Another economic issue that emerged in December media coverage was the announcement that several European supermarkets would stop selling meat from Brazil linked to deforestation. For example, [journalist Emiko Terazono from Financial Times noted in Expansión](#), “The European supermarket chains Sainsbury, Carrefour and Ahold Delhaize will stop selling several meat products of Brazilian origin after an investigation discovered that they contributed to the destruction of the forest Amazonian. Pressure to curb deforestation has increased since last month’s climate summit

in Glasgow. At COP26, a hundred countries pledged to end by 2030 the production of meat from cattle raised on land where forests and savannas, one of the main sources of CO₂ emissions, have been cut down”.

To end the month, the failure of the US Senate to pass the ‘Build Back Better’ bill in December – with many policy actions designed to address climate change – also generated media attention. For example, [New York Times](#) journalists [Brad Plumer](#) and [Nadja Popovich](#) noted, “The fate of the imperiled Build Back Better bill in Congress will have major consequences for America’s ability to tackle climate change...If the climate bill dies altogether, the Biden administration will have fewer options for cutting emissions. The Environmental Protection Agency is working on regulations to reduce pollution from power plants, cars and trucks, but those efforts could face court challenges or be overturned by a new administration. And, while some states like California and New York continue to move forward with their own climate policies, those only cover a fraction of the country”.

Furthermore, December media accounts were punctuated by [cultural](#) stories relating to climate change or global warming. For example, there were several stories of cultural dimensions of German Social Democrat Olaf Scholz Ayer succeeding Angela Merkel in the German Chancellery. [An editorial in the newspaper La Vanguardia](#) reported on the coalition with the Greens and Liberals: “in the medium and long term, the policies of the new German Chancellor and his government will find in the fight against climate change one of the main horses of battle of him. The objectives are, in this sense, clear: to accelerate the elimination of coal as fuel, advancing it from 2036 to 2030; achieve that by 2030 80% of the energy consumed comes from renewables, and that, in that same year, no less than fifteen million electric vehicles circulate on German roads.”

Also, stories linking cultural considerations of human population and climate change appeared in December. For example, [journalist Emilia G. Morales from El Mundo](#) wrote, “Spain is the third country in Europe with the highest water stress,

with 70% of its territory at risk of desertification and 27 million Spaniards in danger of suffering from scarcity of water in 2050...climate change is compromising the water resources of the peninsula and any step taken in this area by institutions and social agents should be aimed at reversing this trend and ensuring the sustainability of the Spanish water system.”

On December 25, the film ‘Don’t Look Up’ was released. The film was an allegory about the threat of an incoming comet, with many deliberate connections to (in)action relating to anthropogenic climate change. Many media stories dissected the plot as well as analyzed its influence. For example, [CNN](#) journalist [Brian Lowry](#) commented, “In a grand science fiction tradition, “Don’t Look Up” uses a disaster-movie framework as a metaphor for a reality-based crisis, with a huge comet hurtling toward Earth as a surrogate for indifference to addressing climate change. Yet this star-studded, extremely provocative satire at times veers off course itself, partially undermining its admirable qualities with the broadness of its tone. At its core, writer-director Adam McKay (who wrote the script with journalist/activist David Sirota) delivers a very pointed treatise on the dysfunctional state of current politics and media, in which everyone is so myopic as to be unable to focus on an existential threat. The title reflects the inevitable endpoint of that, with a bury-your-head-in-the-sand approach to impending doom”.

Last, December media accounts about climate change or global warming were also populated by [ecological](#) and [meteorological](#) stories. For instance, wildfires in December in the US and around the world grabbed media attention. For example, [journalist Emma Newburger from NBC News](#) reported, “Wildfires worsened by climate change produced a record amount of carbon emissions in parts of Siberia, the U.S. and Turkey this year, scientists with the Copernicus Atmosphere Monitoring Service said on Monday. Intense and prolonged blazes emitted an estimated total of 1.76 billion tons of carbon – the equivalent of more than a quarter of U.S. annual carbon emissions...Human-caused climate change has fueled hotter temperatures



and drier conditions across the world, which have contributed to longer and more intense wildfire seasons. 2020 was one of the hottest years on record, and 2021 is virtually certain to be among the 10 hottest years ever recorded. In July, the Dixie fire started in Northern California and burned for more than three months. It became the second-largest wildfire in the state's history. Fires in California, Canada and the U.S. Pacific Northwest this year emitted about 83 million tons of carbon, and plumes of smoke from those blazes traveled across the Atlantic Ocean and reached large swaths of Europe. Many countries around the eastern and central Mediterranean also suffered several days of intense wildfires over the summer that led to high concentrations of fine particulate matter and degraded air quality. In July, fires in Turkey prompted widespread evacuations and killed thousands of animals".

Also in December, [Washington Post](#) journalist [Matthew Cappucci](#) reported [abnormally high temperatures in the lower 48 states in the US](#). He wrote, "Winter technically starts on Dec. 21 but, for the two weeks leading up to it, it will feel more like spring across much of the United States. The central and eastern Lower 48 are in line for an extended period of unseasonable warmth. The National Weather Service's Climate Prediction Center is projecting high chances of above-average temperatures for the eastern two-thirds of the nation both six to 10 and eight to 14 days into the future. The core of the warmth in the eight-to-14-day outlook is centered over the mid-South, Tennessee and Ohio valleys, southern Great Lakes and interior Mid-Atlantic, where there's a 90 to 100 percent chance of above-average temperatures. In other words, unusually mild weather is virtually a lock. According to Brian Brettschneider, a climatologist and researcher in Alaska, the Climate Prediction Center hasn't been this confident in such extensive warmth eight to 14 days into the future since 2015".

Furthermore, rare December tornadoes in the US sparked media stories of possible links with a warming world. This devastating set of events raised several questions and discussions. For

example, [CNN correspondent Rachel Ramirez](#) reported, "The series of weekend tornadoes that ripped through the parts of the US this weekend adds to another stretch of deadly and potentially unprecedented weather disasters that plagued the planet this year. Meteorologists and climate scientists say the latest outbreak is historic. And as these extreme weather events intensify, occur more often and exacerbate the country's growing economic toll, science is running to keep up to answer emerging questions of whether climate change is intensifying every single disaster. With this weekend's tornadoes, climate researchers say it's too early to determine the link, but the uncertainty doesn't mean it is unlikely. In Kentucky, the series of tornadoes uprooted trees, tore down homes and infrastructure, and killed at least 74 people. Gov. Andy Beshear said at a news conference that the tornado event reached a "level of devastation unlike anything I have ever seen," he said. Global scientists made clear that weather events, no matter how severe, are occurring against the backdrop of human-caused climate change; nevertheless, it all comes down to discerning how a warming planet is altering weather patterns, including geographical location and frequency, as well as severity. Scientists say the short-lived scale of tornadoes, coupled with an extremely inconsistent and unreliable historical record, makes connecting outbreaks to long-term, human-caused climate change extremely challenging. Unlike large-scale and slow-trending weather events such as droughts, floods and hurricanes, scientific research about the link between climate change and tornadoes has not been as robust".

Meanwhile, at the bottom of the world, a key Antarctic ice shelf melting into the Southern Ocean - called Thwaites Glacier - led to several media stories. For example, [BBC journalist Jonathan Amos](#) reported, "Scientists are warning of dramatic changes at one of the biggest glaciers in Antarctica, potentially within the next five to 10 years. They say a floating section at the front of Thwaites Glacier that until now has been relatively stable could "shatter like a car windscreen". US and UK researchers are currently engaged in an intense study programme at



Thank you for your ongoing interest in the work we do through MeCCO. We remain committed to our work monitoring media coverage of these intersecting dimensions and themes associated with climate change.

**Our ongoing work is dependent on financial support
so please consider contributing:**

<https://giving.cu.edu/fund/media-and-climate-change-observatory-mecco>

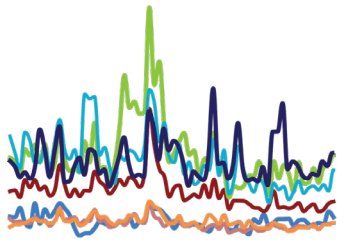
Thwaites because of its melt rate. Already it is dumping 50 billion tonnes of ice into the ocean each year. This is having limited impact on global sea-levels today, but there is sufficient ice held upstream in the glacier's drainage basin to raise the height of the oceans by 65cm - were it all to melt. Such a "doomsday" scenario is unlikely to come about for many centuries, but the study team says Thwaites is now responding to a warming world in really quite rapid ways".

Elsewhere in Asia, a December category 5 Typhoon generated media accounts relating to climate change. For example, [Washington Post](#) journalists [Ian Livingston](#) and [Regine Cabato](#) reported, "Super Typhoon Rai, called Odette in the Philippines, slammed into the eastern portion of the islands on Thursday afternoon. Making first landfall on Siargao island, the storm was packing sustained winds of 160 mph.

Rai became the fourth Category 5-equivalent typhoon in the western Pacific Ocean this year. It is one of the strongest storms of 2021...The country is among the most vulnerable in the world to climate-related weather disasters. Rising seas and warming waters are likely to lead to more frequent and intense storms in the future".

Thanks for your ongoing interest in our Media and Climate Change Observatory (MeCCO) work monitoring media coverage of these intersecting dimensions and themes associated with climate change and global warming. Our ongoing work continues as humans continue to contribute to climate change.

~ report prepared by Max Boykoff, Rogelio Fernández-Reyes, Jennifer Katzung, Ami Nacu-Schmidt and Olivia Pearman



MeCCO

Media and Climate Change Observatory

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MeCCO monitors 127 sources (across newspapers, radio and TV) in 59 countries in seven different regions around the world. MeCCO assembles the data by accessing archives through the Nexis Uni, Proquest and Factiva databases via the University of Colorado libraries. These sources are selected through a decision processes involving weighting of three main factors:



**Geographical
Diversity**

favoring a greater geographical range



Circulation

favoring higher circulating publications



**Reliable Access to
Archives Over Time**

**favoring those accessible consistently
for longer periods of time**

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