



"The latest extreme weather calamity"



Navigating floodwaters in the Dadu district of Sindh Province, of Pakistan. Photo: Fareed Khan/Associated Press.

eptember media attention to climate change or global warming in newspapers around the globe increased 5% from August 2022 yet remained 20% lower than September 2021 levels. Coverage in international wire services increased 10%, and radio coverage dipped 15% from August 2022. Compared to the previous month, coverage increased in Oceania (+7%), Asia (+18%), Latin

America (+34%), and Africa (+39%), while coverage decreased in North America (-7%), the European Union (EU) (-9%), and the Middle East (-20%). Figure 1 shows trends in newspaper media coverage at the global scale – organized into seven geographical regions around the world – from January 2004 through September 2022.

2004-2022 World Newspaper Coverage of Climate Change or Global Warming

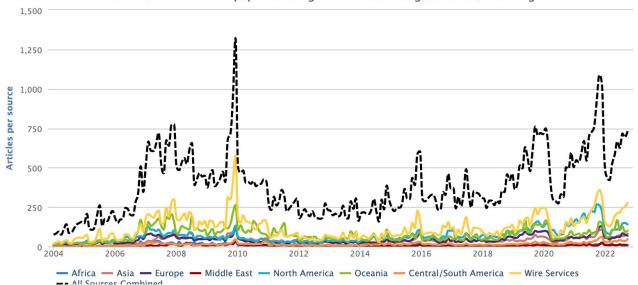


Figure 1. Newspaper media coverage of climate change or global warming in print sources in seven different regions around the world, from January 2004 through September 2022.



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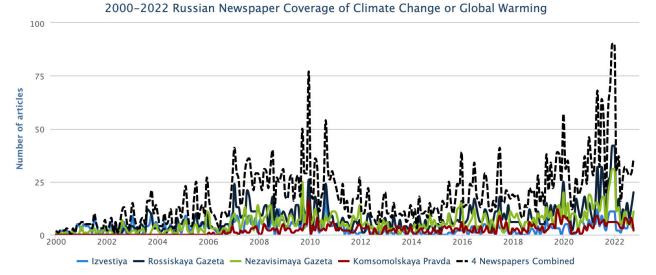


Figure 2. Russian newspaper coverage of climate change or global warming in *Izvestiya*, Rossiskaya Gazeta, Nezavisimaya Gazeta, and Komsomolskaya Pravda from January 2000 through September 2022.

At the country level, United States (US) print coverage decreased 8% while television coverage also decreased 17% from the previous month. Among other countries that we at the Media and Climate Change Observatory (MeCCO) monitor, coverage dropped in Denmark (-4%), Canada (-5%), Finland (-9%), Spain (-10%), the United Kingdom (UK) (-12%), Germany (-14%), Sweden (-20%), and Norway (-49%). However, coverage in April 2022 increased in Australia (+1%), Japan (+4%), India (+11%), New Zealand (+17%), and Russia (+24%) (see Figure 2).

The month of September was dominated by high levels of media coverage about climate change or global warming with ecological and meteorological themes. To begin, La Vanguardia journalist Antonio Cerrillo wrote, "How many additional deaths did the heat wave produce this summer in Spain, can we know? The Carlos III Health Institute estimates that, so far this year, there have been 30,861 more deaths than expected for that period. And of this total, 3,833 deaths are attributable to the high temperatures recorded in July and August, almost triple that of a year ago, when 1,356 people died from the heat in those two months. But according to some experts they could be more..." Furthermore, journalist Antonio Cerrillo also published in La Vanguardia an article titled 'Autumn: hotter than normal' that highlighted,

"This summer has been the warmest so far and exceeded the climatic average by 2.2° and Arid zones are advancing at a rate of 1,500 km2 per year, at the expense of temperate zones".

In September, devastating flooding across Pakistan - with links to climate change made news. For example, Associated Press correspondent Munir Ahmed reported, "The rains started early this year - in mid-June - and swept away entire villages, bridges and roads, leaving hundreds of thousands homeless. At one point, a third of the country's territory was inundated with water. Authorities said the overall death toll reached 1,481 on Tuesday, with 54 more people dying in rain-related floods in the past 24 hours, with the majority of those deaths in the hard-hit province of Sindh. Experts have said that climate change has been blamed in large part for the deluge, the worst in recent memory. Sherry Rehman, Pakistan's minister for climate change, warned that the rains, which had abated late last month only to restart this week, are predicted to continue lashing much of the country in the coming weeks. Rehman also expressed fears the downpours would hamper ongoing rescue and relief operations in flood-hit areas, where swirling deluges from overflowing rivers, fast melting glaciers and floods have already affected 33 million people. So far, rescuers have evacuated 179,281 people from flood-hit areas". As a second example -



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drawing in lives impacted and lives lost - New York Times journalists Christina Goldbaum and Zia ur-Rehman reported, "Mr. Jamali, 84, migrated from the outskirts of Jacobabad, a city in Sindh, to the port city of Karachi late last month after flooding consumed his small farm. The floods this year were the latest extreme weather calamity to uproot his family. The 2010 floods that hit Sindh also forced Mr. Jamali, along with his 18-member extended family, to migrate to Karachi, after their house was damaged. For five years, he saved money to reconstruct their home, he said. But in recent years, life in the district has become almost impossible to survive. Jacobabad is one of Pakistan's most climate-change-hit districts and is considered one of the hottest places on earth. In May, the temperatures rose to 124 degrees Fahrenheit - 51 degrees Celsius - making it one of the hottest cities in the world. Then the flooding in August destroyed his home yet again".

Later in the month of September, Hurricane Fiona caused catastrophic flooding on Puerto Rico. Many media accounts made connections to climate change. For example, NBC journalist Denise Chow reported, "Powerful storms battered three disparate, far-flung corners of the planet over the weekend, but they had one thing in common: They were made stronger and wetter by climate change. From Hurricane Fiona barreling over Puerto Rico and the Dominican Republic to Typhoon Nanmadol pounding Japan, to the remnants of Typhoon Merbok wreaking havoc in Alaska, the past 72 hours have demonstrated the devastating effects of heavy rain and flooding. The three weekend storms add to a trend of wetter storms in a warmer future, said Michael Wehner, a senior scientist at the Lawrence Berkeley National Laboratory".

Making that connection to an unusual cyclone hitting northwestern Alaska, several news accounts connected the event with a changing climate. For example, Washington Post journalists Zach Rosenthal and Jacob Feuerstein wrote, "A powerful ocean cyclone is blasting the western coast of Alaska – bringing major flooding to coastal communities and wind gusts to 90 mph. The National Weather Service in Fairbanks,

which issued issue warnings for both the water and the wind, said the storm was "producing water levels above higher than any seen over at least 50 years"... In the Fourth National Climate Assessment, a comprehensive climate change report looking at impacts in the United States published in 2018 – scientists expressed concern that climate change has set the stage for greater impacts from large nontropical cyclones in Alaska. Warmer summers and oceans have caused a greater-than-normal seasonal loss of sea ice, which makes the region more vulnerable to ocean inundation".

Then in late September, the powerful Hurricane Ian devastated Cuba before making landfall in the US states of Florida and South Carolina. Many news stories discussed how climate change fueled the storm. For example, Associated Press journalist Seth Borenstein reported, "Hurricane lan is quickly gaining monstrous strength as it moves over oceans partly heated up by climate change, just like 30 other Atlantic tropical storms since 2017 that became much more powerful in less than a day. This turbocharging of storms is likely to become even more frequent as the world gets warmer, scientists say...lan's rapid intensification occurred after it traveled over Caribbean waters that are about 1.8 degrees Fahrenheit (1 degree Celsius) warmer than normal, largely because of climate change. Colorado State University hurricane researcher Phil Klotzbach said the warm water creates "a lot more rocket fuel for the storm." Climate change has other effects. The buildup of heattrapping gases from burning fossil fuels is making storms slower and wetter. It exacerbates deadly storm surges through sea-level rise, worsens freshwater flooding and increases the proportion of monster Category 4 and 5 storms, like Fiona last week, several studies show. The current hurricane season had been uncharacteristically mild until about a week ago because of dry air in the Atlantic. Yet while storms aren't necessarily more frequent, they are getting nastier because of global warming, experts say".

As a second example among many stories about hurricane lan, New York Times journalists

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Elena Shao, Nadja Popovich and Mira Rojanasakul reported, "New data from NASA reveals how warm ocean waters in the Gulf of Mexico fueled Hurricane Ian to become one of the most powerful storms to strike the United States in the past decade. Sea surface temperatures were especially warm off Florida's southwest coast, allowing the storm to pick up energy just before crashing into the state north of Fort Myers. The storm brought fierce winds, unrelenting rains and catastrophic flooding to southwest Florida. As it moved inland, it lost power and was downgraded to a tropical

storm, but grew into a hurricane again as it traveled across the warm Atlantic toward South Carolina. Storms usually weaken as they move over land and lose access to their main source of moisture and energy. Hurricane Ian was able to, over the course of its path, pull a lot of energy out of the ocean, which could have sustained it for longer than normal, said Christopher Slocum, a physical scientist at the National Oceanic and Atmospheric Administration. September is the peak of hurricane season, spurred by temperatures in the Gulf that are warmer than at other times of the year, experts say. The climate phenomenon known as La Niña has also contributed to more favorable conditions for hurricanes in the North Atlantic over the past three years. However, waters off the coast were also two to three degrees Fahrenheit warmer than usual for this time of year, according to preliminary data from NASA...More than 90 percent of the excess heat from human-caused global warming over the past 50 years has been absorbed by the oceans, and a majority of it is stored in the top few hundred meters. Scientists say that while climate change has not necessarily increased the number of hurricanes, it has made them more powerful, as warmer ocean waters strengthen and sustain those storms. The proportion of the most severe storms -Categories 4 and 5 - has increased since 1980, when satellite imagery began reliably tracking

hurricanes".



Figure 3. Newspaper front pages covering Hurricane lan's destruction, making links with a changing climate.

While the bulk of news accounts relating to climate change focused on meteorological events in September, a steady stream of scientific themes emerged in September media stories. For instance, research published in the journal Science regarding methane flaring, venting and leaking prompted several news accounts. For example, Wall Street Journal reporter Eric Niiler wrote, "Emissions of methane from oil and natural gas wells are far higher than previously thought because a technique the facilities use to prevent the greenhouse gas from escaping into the atmosphere isn't working as expected, scientists said in a study published Thursday in the journal Science. Called flaring, the technique involves burning natural gas that leaks from wells-much as a stove's pilot light burns gas. The study, which involved testing the air around 300 flares in four states, showed that many flares were unlit or operating inefficiently. As a result, emissions from the flaring facilities of methane-the principal constituent of natural gas-are five times greater than previous estimates by the U.S. Environmental Protection Agency. That means overall methane emissions from U.S. oil and gas production are about 10% higher than previous EPA estimates, according to the study".

Meanwhile, several *political* and *economic* themed media stories about climate change or global warming continued in September. To



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begin, InfluenceMap's published examinations major oil and gas companies' public communications messaging revealed that rhetoric contrasted materially with ongoing investment activity. For example, CNN journalist Lauren Kent reported, "Big oil companies are spending millions to portray themselves as taking action on climate change, but their investments and lobbying activities don't live up to their planet-friendly claims, according to a new report. An analysis from London-based energy and climate think-tank InfluenceMap found that the amount of climate-positive messaging used by five major oil and gas companies -- BP, Chevron, ExxonMobil, Shell, and TotalEnergies -- is inconsistent with their spending on lowcarbon activities. The report comes as scientists have grown increasingly urgent in their warning that the world must slash the use of fossil fuels to prevent catastrophic consequences of the climate crisis. It also comes amid fresh criticism of oil companies' growing profits as consumer energy costs soar. The think tank analyzed 3,421 items of public communications materials for 2021 across the five companies and found that 60% of their messaging contained at least one "green" claim. InfluenceMap then calculated the amount of money the energy companies expected to spend on green investments last year and found on average just 12% of their capital expenditure budgets were going toward what the companies themselves consider lowcarbon or renewable activities".

Meanwhile, the Global Registry of Fossil Fuels released a 'Carbon Tracker and Global Energy Monitor' database that generated several media stories. For example, Guardian journalist Oliva Milman reported, "Burning the world's proven reserves of fossil fuels would emit more planet-heating emissions than have occurred since the industrial revolution, easily blowing the remaining carbon budget before societies are subjected to catastrophic global heating, a new analysis has found. An enormous 3.5tn tons of greenhouse gas emissions will be emitted if governments allow identified reserves of coal, oil and gas to be extracted and used, according to what has been described as the first public database of fossil fuel production. The database,



Figure 4. A newspaper front page of *Le Monde* covering energy concerns relating to the Russian invasion of Ukraine and with links to a changing climate.

which covers around three-quarters of global energy production, reveals that the US and Russia each have enough fossil fuel reserves to single-handedly eat up the world's remaining carbon budget before the planet is tipped into 1.5C (2.7F) or more of heating compared to the pre-industrial era".

Last, several September media accounts featured political stories relating to climate change or global warming. For example, Carlos III would accede to the British crown after the death of Elizabeth II, nicknamed the Green King, for his tireless environmental activism, as the article stated "How Carlos III thinks". For example, *La Vanguardia* journalist Alexis Rodríguez noted, "The green floods his activism. Vehemently. Even with thick words. She worries about climate change. He supports organic farming. And green energy. And all this from his youth. To that end he founded The Prince's





Charities when he was barely in his twenties. He keeps at it. At the most recent climate conference COP26 of Glasgow, Scotland, last year, for example, the still Prince Carlos called on world leaders who should adopt a "position of war" to face the global threat of change climate and biodiversity loss. The new monarch, at the COP26 in Glasgow, invited world leaders "that they should adopt a "position of war" to face the global threat of climate change and the loss of biodiversity".

Last, in September media coverage also featured many *cultural* stories relating to climate change or global warming. To begin, coverage continued regarding the use of private planes. For example, El País journalist Clemente Álvarez wrote, "France has put the planes of the richest at the center of the debate, which, although globally contribute little to climate change, represent one of the most extreme cases of inequality in the way they pollute". Meanwhile, La Vanguardia journalist Antonio Cerrillo noted, "PSG striker Kylian Mbappé burst out laughing a few days ago when his coach, Christophe Galtier, was questioned by a journalist about whether the club planned to use the train on certain routes, instead of the plane, to reduce the carbon footprint. Hearing the question, a theatrical Galtier smiled, shook his head and pinched his nose, before blurting out, "The company that organizes our tours is trying to see if we can travel by sailboat." The mocking response triggered Mbappé's fit of laughter;

and, although the coach apologized the next day, criticism has been heaped on the star striker, accused of "lack of respect, contempt and disdain" towards policies to reduce emissions and mitigate global warming".

Meanwhile, human rights and climate change concerns combined in several September news accounts as Egypt gets set to host the next round of United Nations climate negotiations. For example, an Associated Press wire story reported, "Amnesty International accused Egypt on Wednesday of attempting to cover up a decade of "unrelenting violations of human rights" in order to improve its international standing ahead of hosting the world climate summit. Egypt's human rights record has come under intensified scrutiny ahead of the November global COP27 summit in the Red Sea resort of Sharm el-Sheikh. Dozens of international rights groups have called on Egypt to end its crackdown on civil society and protect freedom of expression. Wednesday's 48-page report by Amnesty urged the Egyptian government to implement changes and stop abuses, citing a relentless clampdown on dissent, rollback of personal freedoms and mass incarcerations after President Abdel Fattah el-Sissi came to power in 2013. Rights groups estimate that thousands of political prisoners are held in Egyptian jails".

Last, perhaps both a cultural and political economic story generated many media



Figure 5. Newspaper front pages covering the vandalism/terrorism of the Nord Stream pipelines, with links to climate change and climate risks.





accounts in late September. The apparent sabotage of the Nord Stream 1 and 2 methane gas pipelines in the Baltic Sea - and the release of climate change-inducing methane gas into the atmosphere - generated several news stories. For example, Guardian correspondents Karen McVeigh and Philip Oltermann noted, "Scientists fear methane erupting from the burst Nord Stream pipelines into the Baltic Sea could be one of the worst natural gas leaks ever and pose significant climate risks. Neither of the two breached Nord Stream pipelines, which run between Russia and Germany, was operational, but both contained natural gas. This mostly consists of methane - a greenhouse gas that is the biggest cause of climate heating after carbon dioxide. The extent of the leaks is still unclear but rough estimates by scientists, based on the volume of gas reportedly in one of the pipelines, vary between 100,000 and 350,000 tonnes of methane. Jasmin Cooper, a research associate at Imperial College London's department of chemical engineering, said a "lot of uncertainty" surrounded the leak".

With all this in mind, we thank you for your ongoing interest in our Media and Climate Change Observatory (MeCCO) work monitoring coverage of these intersecting dimensions and themes associated with climate change and global warming. There simply are no comparable monitoring services for news coverage of climate change or global warming. We provide these monthly summaries, datasets and figures open source and downloadable so that they can be used widely; however, our ability to do so depends on financial support from those who can do so. If you are someone who can support MeCCO (any amount is helpful), follow this link: https://giving.cu.edu/ fund/media-and-climate-change-observatorymecco-fund

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

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:

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MONTHLY SUMMARIES

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MeCCO monitors 126 sources (across newspapers, radio and TV) in 58 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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