Here are recent news articles that detail the significance of increasing heat waves and their potential impact across the region

India is no stranger to warm weather, but now its residents are facing a new challenge: heat waves intensified by climate change. These hotter temperatures pose a major health threat. When a severe heat wave hit Ahmedabad in 2010, for example, people poured into hospitals with dehydration, heat stroke, and respiratory problems. Slum residents were especially hard hit, and city officials struggled to provide necessary care. Experts say the heat contributed to more than 1,000 deaths. Another heat wave that swept across much of India in May 2015 caused as many as 2,300 deaths.

https://www.nrdc.org/issues/prepare-india-extreme-heat

ISLAMABAD, Pakistan: The Federal Minister for Climate Change Senator Sherry Rehman has called upon the home departments, provincial disaster management authorities and provincial teams of PMD to take precautionary actions in an effective manner to mitigate against possible GLOF events and flash-floods in the Gilgit-Baltistan (GB) and Khyber Pakhtunkhwa (KP) due to increases in regional temperature.

She said, "The Ministry of Climate Change has issued an official warning in an advisory note

addressed to the concerned organizations, with particular attention drawn towards the possible occurrence of glacial lake outburst floods and flash-floods in the KP and GB regions.

As per observations by the Ministry of Climate Change, there has been a climatic shift in the region which has led to an increase in GLOF events and flash floods. Whilst the NDMA is the competent authority for the matter, it is imperative for all of the stakeholders to take precautionary actions in an effective and timely manner to prevent any possible loss of lives or livelihood of vulnerable communities in the wake of any eventuality. This is the first time in decades that Pakistan is experiencing what many call a "spring-less year" in March 2022."

She stated, "Due to a rise in temperatures, glaciers in Pakistan's northern mountain ranges (the Hindu Kush, Himalayas and Karakorum) are melting rapidly and a total of 3,044 glacial lakes have developed in Gilgit-Baltistan (GB) and Khyber Pakhtunkhwa (KP).

https://dnd.com.pk/sherry-rehman-warns-of-possible-glacial-flood-incidents-in-pakistans-north/ 267905

Brutal, record-intensity heat wave that has engulfed much of India and Pakistan since March eased somewhat this week, but is poised to roar back in the coming week with inferno-like

temperatures of up to 50 degrees Celsius (122°F). The heat, when combined with high levels of humidity – especially near the coast and along the Indus River Valley – will produce dangerously high levels of heat stress that will approach or exceed the limit of survivability for people outdoors for an extended period.

The latest forecasts from the GFS and European models predict an unusually strong region of high pressure intensifying over southern Asia in the coming week, bringing increasing heat that will peak on May 11-12, with highs near 50 degrees Celsius (122°F) near the India/Pakistan border. May is typically the region's hottest month, and significant relief from the heat wave may not occur until the cooling rains of the Southwest Monsoon arrive in June. But tropical cyclones are also common in May in the northern Indian Ocean, and a landfalling storm could potentially bring relief from the heat wave.

This article offers good details about the heat's impact.

https://yaleclimateconnections.org/2022/05/india-and-pakistans-brutal-heat-wave-poised-to-resurge/

In the face of these mounting challenges, Indians are scrambling to adapt. Cities have implemented "heat action plans," halting some outdoor work and prompting special measures to distribute water. In Darjeeling, tea growers have turned to organic-farming techniques, partly to make their estates more resilient against the gyrating weather patterns. https://www.theatlantic.com/ideas/archive/2022/05/india-heat-wave-climate-change/629786/

It's not just weather patterns and climate that are interconnected. Heat waves carry with them farranging effects, some that have no borders.

The most obvious, of course, is heat-related deaths. While there hasn't been an official count of deaths attributed to this heat wave, the last major heat wave, which occurred in 2015, is <u>believed</u> to have <u>killed</u> 2,500 people in India and another 1,100 in Pakistan. However, that number may be higher, as there has been some concern with the way India reports heat-related deaths.

https://www.cbc.ca/news/science/india-heat-wave-climate-change-1.6442517

Although India and Pakistan are not the only countries experiencing high temperatures, the population density, the scale of economic activity and rapid urbanization in the region all make the subcontinent more vulnerable to extreme weather events.

The urban heat island effect, a concern in most major cities around the world, is exacerbated in India and Pakistan by the lack of green cover and bodies of water that help cool congested neighborhoods.

"The heat island effects compounded with really unplanned cities adds to the vulnerabilities of the people in this region," said Ganesh Gorti, a doctoral candidate at the University of Colorado Boulder. According to research that Gorti contributed to on <u>patterns of outdoor exposure to heat in South Asian cities</u>, low-income communities that mostly reside in extremely congested neighborhoods with little to no access to greenery, bodies of water or cooling facilities are far more likely to experience heightened impacts of extreme heat.

"It's a matter of environmental justice when it comes to the global south and developed countries, and it is also a matter of environmental justice when we compare cities and communities within the region," said Gorti.

https://insideclimatenews.org/news/07052022/heatwave-india-pakistan-deaths-health-risks/

NEW DELHI — Vigyan Shukla, a 45-year-old farmer on north India's plains, has known heat all his life. But not heat like this.

When temperatures began to soar in Uttar Pradesh state several weeks ago, Shukla's wheat crops began to shrivel and his cows provided less milk. When the mercury hit 118 degrees Fahrenheit last week, a record high in Shukla's town of Banda, it became punishing for humans, too: Seven of his 25 farm hands came down with diarrhea, a symptom of heat stroke. Others refused to stay outside past 10 a.m.

https://www.washingtonpost.com/world/2022/05/09/india-heat-wave-climate-change/

"The significance of the current Indian/Pakistani heatwave is less about smashing records ... and more about very long duration," Robert Rohde, lead scientist at climate data analysis nonprofit Berkeley Earth, said on Twitter last we

https://www.scientificamerican.com/article/astonishing-heat-grips-india-and-pakistan/

Over the last two months, heat waves across South Asia have been impacting <u>roughly 99</u> <u>million</u> people, especially the region's most vulnerable, triggering anxieties about the future. Experts say that the South Asian temperatures are <u>exceeding</u> "wet bulb temperatures," in which the body stops sweating and starts heating up exponentially. This year, India touched its <u>hottest</u> March in 122 years, while the same month for Pakistan was the <u>hottest</u> in 60 years.

https://www.vice.com/en/article/g5qajq/lethal-worst-heat-wave-india-pakistan-south-asia