



Sociolinguistic Dynamics of Eco-Discourse in Pakistani News: Analyzing  
How Language Promotes Environmental Sustainability

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Abstract

This study examines the sociolinguistic function of eco-discourse in Pakistani news media, focusing on how language and visual imagery shape public perceptions of eco-friendly sustainability practices in the context of heatwave events. Applying social constructionist principles, the study employs Multimodal Discourse Analysis, as outlined by Kress and van Leeuwen (2006), to analyze news articles and images published by major national and international news organizations between March and June 2025. Six news items with images have been selected as the sample of the study. The findings show that thermometers and scientific sources consistently support warnings, while emotional images of vulnerable groups highlight human and infrastructural fragility. Introductory patterns depict government agencies as powerful actors and citizens as recipients of information. Layout techniques also use headlines to create urgency and striking images but often omit references to climate change, portraying heatwaves as isolated weather events rather than systemic crises. These observations demonstrate that media discourse not only reflects public understanding but also influences it, shaping certain narratives and limiting discussion of environmental challenges. The report calls for more contextualized and inclusive reporting that connects smaller-scale threats with broader climate issues, enabling affected populations to engage more critically with sustainability efforts.

**Keywords:** Multimodal Discourse Analysis, Environmental Communication, Heatwaves, Climate Change, Media Framing, Pakistan

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## INTRODUCTION

Eco-discourse can be described as an organized dialogue of ideas, narratives, and symbolic expressions concerning the relationship between humanity and the environment. It utilises metaphors to shape perceptions of environmental responsibility, including who has the right to speak, which facts are valued, and how nature is depicted. Eco-discourse has infiltrated the media, advertising, and policymaking processes, and initiatives such as using the words green, sustainable, and eco-friendly influence individual behaviour and thinking.

Ecolinguistics and environmental communication are academic disciplines that explore how language influences thought and behaviour related to the environment. The legitimization and marginalization of scientific, indigenous, and local knowledge systems can be discussed as areas of knowledge popularized by scholars, as they impact the discourse and reflect power relations within wider society (Shan, 2018). The language used in policies concerning sustainability influences the policies in a way that makes some solutions appear legitimate while others remain concealed. Terms such as sustainable development and eco-industrialism reinforce specific values and power relations (Bristow & Wells, 2005).

Language plays a vital role in shaping behaviour. The concepts of Mother Nature and natural resources are metaphorically and morally charged because they evoke emotional and moral associations that encourage caring. However, utilitarian terms like natural resource may lead people to view nature merely as a resource (Smith, 2024). Language structure is also important; for example, people who speak languages without markers for the future tense, such as Finnish, tend to participate in pro-environmental actions more often because their perception of the future and the present is more closely linked (Bruder & Bouherar, 2023).

Sociolinguistics also provides insights into how social factors influence language use and attitudes towards environmental issues (Emike, Sanni, Agu, & Olusanya, 2021), such as class, gender, ethnicity, and region. Cultural worldview implies that a considerable amount of ecological knowledge is embedded in indigenous languages. For example, the Māori concept of kaitiakitanga represents a form of spiritual guardianship and environmental responsibility that is notably different from Western models of control.

Environmental education is more effective when it incorporates local languages and cultural perspectives. Teaching environmental issues in students' native languages leads to greater interest and understanding (Hartley, et al., 2023). Additionally, an appeal that uses emotionally and culturally evocative language, rather than technical terms, is more successful in persuading people to change their behaviour and awareness (Miller, 2021).

Critical role is also played by media discourse. Expressions such as the climate crisis or climate emergency are more urgent compared to climate change, which water down the threats to the environment. This wording can alter the way societies understand these issues and respond to them (Bruder & Bouherar, 2023). Ecolinguistics critiques ideology-driven Western discourse that has promoted economic growth at the expense of nature conservation. The ideologies of exploitation are embedded in phrases like 'man against nature' or 'land development', which make unsustainable practices seem normal (Smith, 2024). Conversely, language diversity, especially regarding Indigenous languages, preserves extensive environmental knowledge, which communities practicing sustainability can utilise through respect and reciprocity (Ecolinguistics: Exploring the Intersection of Language, Ecology, and Society, 2024).

In conclusion, language is not merely a form of communication; it is a tool that shapes environmental reality. More effective and inclusive sustainability plans can be developed through thoughtful and non-degrading word choices that reflect cultural and ecological wisdom (Ponton, 2024).

## **PROBLEM STATEMENT**

Although the role of language in influencing people's attitudes towards environmental sustainability is widely acknowledged, there still exists a persistent gap between the goals of environmental policymaking and people's readiness to engage in meaningful actions. Media news agencies play a crucial role in this process because their portrayal of environmental issues can either foster a sense of collective responsibility or lead to apathy and systemic consumption. Audiences are significantly influenced by the metaphors, stories, and emotional appeals used in news reporting, which shape how they interpret environmental threats, assign blame, and respond to ecological challenges. Differences in culture and language further complicate shared understanding and collaboration across contexts. Although these factors are quite important, there is no unified research analyzing the sociolinguistic features of eco-discourse in media coverage and their impact on the level of public interest in sustainability initiatives.

## **RESEARCH OBJECTIVES**

1. To identify the linguistic patterns and narratives that contribute to environmental sustainability initiatives.
2. To analyze how these patterns are reinforced or challenged within different social contexts.

## **RESEARCH QUESTIONS**

1. How do eco-discourses shape ecological sustainability across diverse social contexts?
2. How do media and news agencies employ language to present discourses that make sustainable actions for the environment?

## **SIGNIFICANCE OF THE STUDY**

This study is highly significant for both the theoretical and practical aspects of environmental communication. It also highlights critical gaps between policy development and community involvement by revealing the influential role of language, metaphors, and culturally embedded narratives in shaping how people think about and understand sustainability in society. The focus on linguistic diversity and the inclusion of indigenous languages addresses the growing demand for culturally relevant and socially inclusive communication strategies. The insights gained from this research will empower educators, policymakers, and media professionals with an evidence-based guide to develop training materials, campaigns, and policies that resonate with different social groups. Ultimately, this strengthens language as a powerful tool for promoting environmental stewardship, enabling marginalized communities to actively participate in discourse and action on sustainability (Prodanovska-Poposka, 2024).

## **RESEARCH METHODOLOGY**

The study adopts a qualitative approach to explore how language and visual elements influence perceptions of environmental sustainability. Specifically, qualitative research is suited for examining complex social phenomena, as it emphasizes meanings, experiences, and interpretations rather than statistical data. This approach provides deep insights into how eco-discourses in media and institutional contexts create social realities and influence behaviour. The textual and visual data are analyzed using standard qualitative methods, such as Multimodal Discourse Analysis, which addresses issues related to framing and

transmitting environment-related messages. It also incorporates reflexivity, helping the researcher account for personal biases and enhance the quality of the research.

Eco-discourse is also socially constructed and characterized by such eco-concepts as the climate crisis or green growth, which are shaped by the press, political powers, and institutional agendas. These concepts influence the way people think and guide policy-making activities. Powerful actors choose specific language and images to endorse certain solutions while discrediting sustainable perspectives or indigenous views. The idea of social constructionism demonstrates how narratives reflect the prevailing power structures that priorities some issues over others and amplify certain voices. A critical analysis of this text can help reveal biases and promote more inclusive, culturally sensitive communication on environmental matters.

## **THEORETICAL FRAMEWORK: SOCIAL CONSTRUCTIONISM**

Social constructionism states that knowledge and reality are socially created through language, culture, and social practices, rather than existing independently of them. Applying this to environmental issues, it suggests that concepts like climate change or sustainability are shaped by how they are identified and expressed. The use of language such as “carbon sink” or “resource bank” reflects different values and influences overall perspectives and policies. These discourses can be examined to reveal how perceptions of threats and responsibilities are socially constructed.

## **ANALYTICAL METHOD: MULTIMODAL DISCOURSE ANALYSIS (MDA)**

The paper employs Multimodal Discourse Analysis, as established by Kress and van Leeuwen (2006), which aims to analyze how both visual elements and text interact in the production of meaning within the environment. MDA shares many features with social constructionism, as language, images, layout, and design work together to shape reality (Jancsary, Höllerer, & Meyer, 2016). It involves examining three metafunctions: representation (how the issue is depicted), interaction (how audiences are engaged in that manner), and composition (how elements are organized in that context). The data set includes environmental campaigns, advertisements, media articles, and policy documents selected for their multimodality and relevance to current debates in the field of sustainability. The method will provide a logical overview of how various actors establish environmental responsibility and promote specific interpretations of sustainability.

## **RESEARCH DESIGN**

This study employs a qualitative research design grounded in social constructionist epistemology to explore how language and visual elements shape the content of environmental sustainability from the perspectives of individuals. The study employs Multimodal Discourse Analysis to identify how narration, metaphors, and images interact within media articles, policy texts, advocacy campaigns, and advertisements. It examines the mechanism through which verbal and visual resources convey meaning, reinforce power relationships, and shape common attitudes and behaviours through a systematic analysis of the framework of representation, interaction, and composition, as outlined by Kress and van Leeuwen (2006). The purposive sampling method, which selects texts rich in multimodal content relevant to current sustainability discussions, offers context-sensitive insights into the sociolinguistic nature of eco-discourse patterns.

## **DATA SAMPLING**

In this study, purposive sampling was employed to gather a diverse range of news items from major media outlets that significantly influence the public discussion on environmental issues. The sources included The News, The Nation, Daily Times, and The



Express Tribune, chosen to represent both national and international perspectives. Articles were selected based on topics such as climate change, pollution, conservation, and sustainability, and were chosen for their combination of textual content and graphical details to enable multimodal analysis.

## DATA COLLECTION

This research used data systematically compiled from major news media outlets that hold significant influence over public knowledge on environmental issues. The sample was selected from The News, The Nation, Daily Times, and The Express Tribune. The selection and identification of articles were carried out using specific search terms aligned with the thematic scope of the environment scoop, with particular attention to coverage of heatwaves.

The period of data collection, during which reporting coinciding with the times when most media attention is given to heatwave events could be observed, was limited to publications appearing between March and June. The selected articles had to include not only written elements but also visual ones, such as photographs, infographics, or illustrations. For these items, relevant passages of text, along with the associated images, headlines, and punch lines, were gathered to enable a comprehensive analysis of how language and visual representation can work together to evoke reactions among the general public regarding perceptions of environmental risks.

The materials have been collected so that they are structured in an orderly archive sorted by date, source, and category of content in order to facilitate in-depth scrutiny with the aid of Multimodal Discourse Analysis frameworks.

## LITERATURE REVIEW

The role of language and its use in creating popular consciousness about environmental sustainability has become an important area of multidisciplinary research. Eco-discourse includes stories, metaphors, and symbolic representations used to describe environmental problems, and it is crucial in shaping what societies see as urgent, identifying the culprits, and prioritizing solutions. Researchers have shown that framing certain concepts like climate crisis or green growth involves ideological agendas that influence public perception and government policies. In this context, sociolinguistics offers valuable insights into how social issues, culture, and experiences of power are incorporated into environmental communication. Media institutions, in particular, play a key role as producers and disseminators of these discourses by combining textual content with visual elements to foster shared understanding of ecological issues. This literature review first examines current research on environmental discourse, the sociolinguistic shaping of sustainability concepts, and the multimodal approaches used by news media to represent issues such as climate change and extreme weather events.

Young and Dugas (2012) examined the coverage of climate change by analyzing 2,249 articles from English and French-speaking Canadian newspapers (2007-2008). Newspapers published in England presented more diverse yet compartmentalized accounts, while those published in France contained fewer but thematically richer articles linking climate change to cultural, political, and economic issues. The results highlight the importance of linguistic media in shaping the narratives and perceptions of climate change among the public.

Makwanya (2013) examined the language used in discussing climate change in Zimbabwe, highlighting that technical and vague terminologies often exclude most offshore inhabitants of Sub-Saharan Africa. The research employed Critical Discourse

Analysis and Document Analysis of scientific publications and media texts, revealing excessive use of fear metaphors, hedging, compounding, and jargon, which create information gaps between developed and developing contexts. These barriers were supported by interviews with policymakers, environmentalists, and educators, analyzed using grounded theory. To improve climate change communication, the study advocates for intensive media education, teaching in indigenous languages, and community-based initiatives, making climate change learning more accessible and meaningful.

Namber (2014) conducted a qualitative case study on environment and sustainability reporting in a prominent English magazine in India, using framing and grounded theory. They found that the media discourse relied on highly emotive frames, which were intertwined with international issues and unique new frames specific to the Indian context. These framing techniques are significant in shaping the meanings of global terms such as sustainable development and can be used effectively to promote social change and alter societal attitudes towards conservation and development.

Jensen (2017) conducted a research study to examine how individuals perceive climate change in online media. It employed a baseline survey and reception analysis through focus groups of different ages, political orientations, and religious backgrounds to highlight various stories and arguments related to the environment. Results indicate that climate change often appears to lack scale compared to conventional media output and human mental frameworks, making it difficult to understand and communicate. The study concludes by framing climate change within the context of human rights and social justice as climate justice.

Badiou (2021) analyzed British tabloids and broadsheets that covered the 2018 UK heatwave to assess whether the media linked the weather to global warming. Using both quantitative and qualitative methods, the study found that the theme of climate change was largely absent, especially in tabloids. It was not presented as the root cause of the heatwave when discussed, highlighting a significant gap in the mainstream media's coverage of extreme weather and climate change.

Tang (2023) reviewed how language influences the interpretation of extreme temperature warnings among the UK population. Using media texts and texts read as corpus linguistic data, and exploring audience perceptions through qualitative focus groups, the research finds that language frames risks in a way that exaggerates or obscures threats. This interaction is complex, as the study reveals: linguistic representations interact with people's perceptions, showing that risk is mainly seen as a scalar rather than a state. Prodanovska-Poposka (2024) explored how language contributes to the development of ecological consciousness and sustainability vocabulary. Drawing on ecological psychology, linguistics, and environmental sociology, it offers a concept of ecological language awareness by examining how metaphors, narratives, and underlying meanings influence environmental perceptions and behaviours. The analysis highlights barriers to linguistic knowledge and cultural dominance, while also identifying potential opportunities in inclusive language use and revitalization movements. It concludes by endorsing a subtle linguistic approach to fostering collective concern for environmental action.

Thaker et al. (2024) investigated how Indian media outlets (n=309) covered the 2022 heatwave across newspapers and magazines in English, Hindi, Telugu, and Marathi. It found that references to climate change were minimal—only 14 percent of English articles and less than 10 percent of regional language articles attributed the heatwave to climate change. Politicians and NGOs were rarely featured in attribution studies or scientific

opinions within English-speaking media. Coverage primarily focused on emergency response, disaster planning, and neighbourhood vulnerability. The paper offers both theoretical and practical suggestions for improving climate change reporting in multilingual settings.

Castro and Delina (2025) made a comparative qualitative study on online news reporting of excessive heat disasters in both Hong Kong and Manila from 2010 to mid-2024. It discusses how media discourses convey impacts, vulnerabilities, and coping mechanisms, such as responses from different stakeholders. Results indicate differences depending on the focus of each city, as reporting of heatwave impacts shifts towards preparation and adaptation strategies. Hong Kong coverage focuses more on recording event characteristics and early warnings, while Manila coverage emphasizes mitigation measures. The research affirms the dynamic role of online news in increasing public awareness about heat adaptation and calls for further investigation into the role of social media in communicating extreme heat risks.

Aslam and Shahid (2025) examined the portrayal of climate change as described in prominent Pakistan English-language dailies, specifically in the Dawn newspaper, using the three-dimensional Critical Discourse Analysis framework proposed by Fairclough. By analyzing headlines and language use, it concludes that headlines often adopt disaster frames related to floods and heatwaves, but rarely focus on climate change as a policy or sustainability issue. The discourse has been influenced by government perspectives, economic development interests, and international sentiment, shaping global knowledge and assigning blame in a particular manner.

## **THE GAP IN EXISTING LITERATURE**

Although environmental issues have been extensively studied in the West, there is a missing link in South Asia that combines sociolinguistics with multimodality. Only a few studies in Pakistan have explored MDA in relation to eco-discourse, particularly focusing on visuals and how messages are framed. Additionally, most existing studies overlook the unique linguistic features involved in portraying the environment across different media types. To fill these gaps, this study uses MDA within a social constructionist framework to investigate how Pakistani media construct eco-meanings through various modes of communication.

DATA ANALYSIS

Heatwave alert issued from April 13 across country

Met Office warns rising temperatures may increase snowmelt in northern regions, leading to flood risk from April 14-18



Daytime temperatures may rise by 3°C to 4°C above normal levels in Karachi. PHOTO: PIXABAY

**The Pakistan Meteorological Department (PMD) has issued a heatwave alert, forecasting a sharp rise in temperatures across the country starting April 13, due to a high-pressure system developing in the upper atmosphere.**

FIGURE 1: HEATWAVE ALERT ISSUED FROM APRIL 13 ACROSS COUNTRY  
REPRESENTATIONAL METAFUNCTION  
IMAGE ANALYSIS

The thermometer in the picture indicates temperature. The rising mercury level suggests increasing temperatures, visually representing the heatwave forecast that is about to hit the country. The scientific instrument emphasizes that the heatwave alert is based on data.

The colour of the mercury is blue, which might suggest coolness or coldness when placed in the context of rising levels; it becomes contrasting with the heat that is being discussed. This dichotomy may represent the transition between cold weather and a heatwave.

TEXT ANALYSIS

The title, "Heatwave alert issued across the country from April 13 onwards," immediately informs the reader of the main subject — the heatwave alert. The use of the word "alert" indicates an urgent and potentially dangerous situation, signaling that people should take precautions.

The text states that the temperature in Karachi is expected to rise from 3 °c to 4 °c above normal. This data provides a clear and measurable aspect of the heatwave and offers a definite picture of the predicted impact.

Snowmelt in northern latitudes and the risk of flooding increase the significance of the environmental impact of the heatwave, as it is vital to recognize that the effects of high



temperatures are not limited to urban areas but also affect extensive water systems and northern flood risks.

## **INTERACTIONAL METAFUNCTION**

### **IMAGE ANALYSIS**

The main subject of the picture is the thermometer, which is a scientific tool used to measure temperature. It serves to provide a visual indication of rising temperatures during the heatwave.

The concept of heat is vividly reflected in the rising mercury, and this line symbolizes the increase in temperature levels across the country. It also highlights the progressive nature of the heatwave, making the danger of heat an increasing concern.

### **TEXT ANALYSIS**

The main active subject in the text is the Pakistan Meteorological Department (PMD), which issued the alert based on their scientific weather observations. The role of the PMD is crucial as it informs the public about the heatwave and its possible effects on health and infrastructure.

The passive actors are the citizens who will be affected by the heat wave. A forecast of the impact is provided, indicating that warmer temperatures will influence daily life and environmental systems, thereby endangering vulnerable populations.

## **COMPOSITIONAL METAFUNCTION**

### **IMAGE ANALYSIS**

The main visual element is the thermometer, as it is placed to emphasise the key message: the rising temperatures due to the heatwave. The use of the thermometer draws attention to the scientific focus on monitoring the heat and underscores the accuracy of temperature readings in warning about the severity of the heatwave.

The visual of the mercury rising in the thermometer confirms the escalating nature of the heatwave. The image aligns with the text, which describes how the temperature will gradually increase over the coming days.

### **TEXT ANALYSIS**

The headline explicitly presents the alert in a clear and direct manner, emphasizing that the main concern is the heatwave. The additional detail about the specific temperature rise (from 3°C to 4°C in Karachi) provides quantitative evidence that underpins the urgent tone of the message.

The reference to snowmelt and flood risk in the north places the heatwave within the context of not only an urban but a national environmental issue. It broadens the scope of the heatwave, increasing the likelihood that it will affect multiple areas of life such as water management and public health.

# Severe heatwave alert issued for Punjab amid rising temperatures

PDMA directs hospitals and rescue units to prepare for possible heatstroke cases.



**The Provincial Disaster Management Authority (PDMA) has issued a heatwave alert for Punjab from May 15 to May 19, as the province braces for an intense spell of hot weather.**

**FIGURE 2: SEVERE HEATWAVE ALERT ISSUED FOR PUNJAB AMID RISING TEMPERATURES**

**REPRESENTATIONAL METAFUNCTION**

**IMAGE ANALYSIS**

The picture shows a group of people carrying an individual against a backdrop of a setting sun. The primary motion of the lifting gesture symbolizes strength, unity, and cooperation in facing adversity. The sun directly behind the figures signifies intense heat or harsh environmental conditions, closely tied to the heatwave theme in the text. The arid landscape and the silhouettes of the figures highlight the severity of the situation and emphasise the importance of teamwork in overcoming challenges, much like the idea that individuals must unite and struggle against the effects of a heatwave. Additionally, the symbolism of heat is intensified by the sun, heightening the sense of urgency.

**TEXT ANALYSIS**

The content of the text is a heatwave warning system issued by the Provincial Disaster Management Authority (PDMA) to Punjab, as from May 15 to May 19, temperatures are

expected to be extremely high. The report depicts rising temperatures as an environmental concern of very high priority that debates need to be considered. The fact that the PDMA instructed hospitals and rescue forces to be ready to handle heatstroke cases provides evidence of the urgency of the emergency situation. Similar to the image, the text emphasizes a strong need to take action against environmental extremism, as people and governments must be prepared for the adverse effects of increasing heat. Both the picture and the words highlight the necessity to cope with severe conditions.

## **INTERACTIONAL METAFUNCTION**

### **IMAGE ANALYSIS**

The main characters in the picture are the people who are hauling up the figure resting on them, which highlights cooperation and pulling together to overcome all odds. The viewer is placed in the position of an observer, who is encouraged to consider the significance of solidarity and acts of community. The sun in the background is an indirect participant, reflecting the intense heat or climate crisis that the community is facing. The viewer is distanced from the action, prompted to reflect on how collectiveness can help in combating the effects of natural conditions such as heatwaves.

### **TEXT ANALYSIS**

The participants in the action described are the PDMA, responsible for issuing warnings about the heatwave and providing guidance on how to prepare. The passive actors are the inhabitants of Punjab, who must respond to government orders and are the ones feeling the effects of the rising temperatures. The passage criticizes the possible failure of current systems to handle such extreme conditions and encourages viewers to be prepared and able to take action. The visual of the group acting as a collective contrasts with the role of the government in the text, where the image suggests a solution through community effort, whereas the text indicates a response by institutions.

## **COMPOSITIONAL METAFUNCTION**

### **IMAGE ANALYSIS**

The person being lifted is positioned in the center of the composition, drawing the viewer's attention to the level where they are. This suggests their role in the collective action. The figures are naturally framed by the sun in the background, highlighting the environmental challenge faced by the figures. The open expanse surrounding the group emphasizes that there are no obstacles in terms of infrastructure or resources in the area, making innovation and community cooperation essential when confronting these challenges. The chorus underscores the solidarity and effort needed to face the hostile forces, including the heatwave.

### **TEXT ANALYSIS**

The title of the text refers to the heatwave warning and the soaring temperatures immediately, highlighting the severity of the crisis. The body transitions from general issues (the heatwave) to more specific difficulties (infrastructure delays, rising tanker costs). The structure shifts from describing the problem to explaining solutions and what the government should do. This mirrors the emphasis in the image where the main focus is on group work; in the text, the focus shifts to the urgent need to recognize the necessity of action. The manuscript is framed to encourage the reader to take action.

# Rain breaks heat spell, sparks power disruptions in Lahore



Light to heavy rainfall in the early hours of Friday brought much-needed relief from the persistent heatwave, turning the weather pleasant across several cities, including Lahore.

**FIGURE 3: RAIN BREAKS HEAT SPELL, SPARKS POWER DISRUPTIONS  
IN LAHORE REPRESENTATIONAL METAFUNCTION**

**IMAGE ANALYSIS**

The visual shows motorbikes and cars maneuvering through wet streets, suggesting a typical city scene during the downpour. The wet roads and vehicles imply that transportation in Lahore has clearly been affected by the rain.

The trees along the roadside are lush and vibrant, which could indicate that the rain is welcomed by the environment and has brought relief to the city. The puddles on the road also symbolize the immediate effects of the rain, showing that it was strong enough to have an impact on daily activities, although it did not lead to uncontrollable flooding.

The flow of cars and motorcycles in the rain symbolizes how people adapt to the new weather conditions. The fact that motorcyclists are wearing helmets and vehicles move steadily shows that the rain is a temporary disturbance and not an insurmountable obstacle.

**TEXT ANALYSIS**

The title of the newspaper, “Rain breaks heat spell, causes power disturbances in Lahore, speaks of the rain as a respite to the heatwave. The breaks in the weather bring a sense that



the rain is a change of weather that is welcomed, bringing relief from the ongoing heat. However, the power outages caused by the rains show that the storm also brought serious issues, particularly related to infrastructure.

The text states that the rain ending a long dry season is seen as an environmental benefit, yet it also references inconveniences such as power supply disruptions caused by feeder tripping. This ambivalence suggests that, while the rain brings relief, it also reveals vulnerabilities in the systems.

The text concludes with a forecast of increased rainfall across the country, portraying the weather as a temporary relief and a potential source of further disruptions if infrastructure is not adequately prepared.

## **INTERACTIONAL METAFUNCTION**

### **IMAGE ANALYSIS**

The riders on motorcycles and drivers in cars are the main active figures in the scene as they move through the rain. Their movement on the wet roads shows that, despite the rain and the rainy season, life continues and people still have to move with the changing weather.

The trees and the rain are inanimate objects, symbolizing the transformation of the environment caused by the rain, which is viewed as a positive change for the natural environment.

The interaction between the road, cars, and rain shows how the environment affects daily city activities, especially for travelers or commuters.

### **TEXT ANALYSIS**

The active participants in the text are the government and utility providers (through the Lahore Electric Supply Company (LESCO)). The way it is written presents the power outages as a direct consequence of the rain, which suggests that the infrastructure could not withstand the unexpected weather change, indicating a problem with preparedness.

The people of Lahore are merely spectators who enjoy the positive effects of the rain, such as cooler weather, but also suffer from the inconveniences caused by power cuts. The text indicates that the populace experiences both the benefits of cooler temperatures and the drawbacks of power disruptions.

## **COMPOSITIONAL METAFUNCTION**

### **IMAGE ANALYSIS**

The cars and motorcyclists are placed in the foreground, drawing more attention to human activity and adaptation during the rainy season. The way they navigate the rain demonstrates the resilience of the people, even when circumstances are challenging.

The background is filled with rain, suggesting that the weather is the main feature in the scene. It directly affects the environment but does not hinder the traffic or everyday activities.

The trees in the picture are fully visible, symbolizing nature that benefits from the rain as the drops provide relief to the environment, yet also indicating human activities that must continue regardless of the weather conditions.

### **TEXT ANALYSIS**

The headline highlights the rainfall as the main event, while also mentioning the inconveniences caused by the rain to create a cause-and-effect relationship. It presents the benefit of rain (relief during the heatwave) alongside the drawbacks (power cuts), which reveal weaknesses in the infrastructure. The mention of the affected cities places the rain within the broader context of the country's weather conditions, thus framing it as a

national issue. This indicates the widespread impact of the rain across Pakistan, affecting various regions and posing challenges to the government and infrastructure.

# Summer vacations in Punjab: Schools may start summer break early due to heatwave threat



**LAHORE:** The Provincial Disaster Management Authority (PDMA) has recommended an early start to summer vacations in Punjab’s schools due to the increasing risk of heatwaves. In a letter addressed to the provincial education departments and local authorities, PDMA Director General Irfan Ali Kathia advised precautionary measures to safeguard students and staff from extreme heat.

**FIGURE 4: SUMMER VACATIONS IN PUNJAB: SCHOOLS MAY START SUMMER  
BREAK EARLY DUE TO HEATWAVE THREAT**

**REPRESENTATIONAL METAFUNCTION**

**IMAGE ANALYSIS**

Students are seen dangerously hanging on an overcrowded vehicle in the picture, highlighting the unsafe mode of transport most students have to endure, possibly due to lack of resources or facilities. The students are depicted wearing blue uniforms to emphasise that they are school children.

The crowded vehicle serves as an allegory of the danger of infrastructural poverty, compounded by the heatwave. It suggests that students are vulnerable to the heat on their way to school, which can result in serious health issues.

The city environment and traffic contribute to the perception that the issues of overpopulation and inadequate infrastructure make it more difficult to find shelter in the heat. This may increase stress for students and staff during the heatwave.

**TEXT ANALYSIS**

The newspaper headline, “Summer Vacations in Punjab: Schools might advance summer holidays because of heatwave threat,” immediately highlights the main issue: the risk of a heatwave. Suggesting an early summer holiday reflects how serious the situation is, aiming to protect both students and staff from extreme heat.

According to the text, the Provincial Disaster Management Authority (PDMA) has offered suggestions to stay safe during the heatwave. This is an official response, demonstrating

the government's role in safeguarding public health and emphasizing the importance of precautionary measures.

Student and staff safety make the education sector the focus of attention, which means that the emphasis on public health in schools is due to the extreme environmental conditions.

## **INTERACTIONAL METAFUNCTION**

### **IMAGE ANALYSIS**

Students travelling in overcrowded vehicles are the passive actors in the scenario, as they are exposed to the dangerous phenomenon of overcrowded transportation. The hazardous conditions of travel highlight the lack of security procedures during their journey, which emphasizes the fragility of students in such situations.

The vehicle itself acts as an active participant, and the infrastructure issue is a significant factor in shaping students' experiences. The congested condition of the vehicle draws attention to the insufficiency of resources for safe school transportation.

The background setting with heavy traffic and urban infrastructure hints at larger systemic issues that contribute to the impacts of the heatwave and pose even greater risks to students.

### **TEXT ANALYSIS**

The governing body, in this case, the PDMA, is the main actor in the text as it is the one that issues the recommendation for early school holidays. The PDMA is portrayed as having acted to protect the health of the population by advising precautionary measures.

The passive participants in the text are the students and staff, as they are the ones who will receive the actions taken by the government to ensure they are not affected by the extreme heat. The reading suggests that such individuals are vulnerable to any impacts of the heatwave, making government interventions essential.

## **COMPOSITIONAL METAFUNCTION**

### **IMAGE ANALYSIS**

The students in the vehicle are the main visual focus, and their dangerous arrangement distracts from the vulnerable situation of the students on their way to school in the hot weather. The picture clearly illustrates the danger and inconvenience experienced by the students due to the lack of proper safety measures in transportation.

The overcrowding of the vehicle highlights the lack of safety and sustainability faced by many students, stemming from the underfunded or poorly managed education infrastructure on a broader scale. The school bus controversy exemplifies institutional negligence, where student safety is not a priority.

### **TEXT ANALYSIS**

The headline provides immediate context about the main issue, highlighting the danger of heat waves and the measures taken by the government. This sets the foundation for the government's decision to advance summer holidays, as it is now clear that protecting public health is the top priority.

Specific Governmental Response, The reference to the recommendation of the PDMA is used as a concrete government intervention measure and is followed by the general health consequences of heatwaves. The textual composition positions the government's intervention as a timely and appropriate measure to ensure the welfare of students and staff.

# Pakistan likely to hit historic high of 50°C: report

Weather models indicate that peak of this heatwave in Pakistan is expected on Wednesday and Thursday



A man cools off with a water hose during a hot summer day in Hyderabad, May 24, 2024. — Reuters

## FIGURE 5: PAKISTAN LIKELY TO HIT HISTORIC HIGH OF 50°C: REPORT REPRESENTATIONAL METAFUNCTION IMAGE ANALYSIS

The main subject is a working man who suffers from the intense heat, spraying himself with water using a green hose. His stance, wet shirt, and sweat-streaked face symbolize both physical hardship and a basic survival instinct. The unfinished walls and other building materials suggest a lack of socio-economic prosperity in the background.

### TEXT ANALYSIS

The caption and the heading reveal an unfolding environmental crisis. The use of phrases like “historic high” and “expected peak” indicates not only the immediacy of time but also underscores the extreme nature of the climatic conditions. The framing emphasizes heatwaves as a natural phenomenon, with causes omitted, which indirectly highlights the invisibility of human-induced aspects of climate change.

### INTERACTIONAL METAFUNCTION

#### IMAGE ANALYSIS

The man is not gazing at the viewer, which suggests that the photograph was taken spontaneously. This creates an observational rather than participatory perspective, with the audience acting as outsiders. The upward-down view and close framing give an impression of a specific time and reality, but do not evoke emotional appeals.

#### TEXT ANALYSIS

This has a distant and cold tone, making it seem unemotional and reporting in nature, with passive structures (Pakistan likely to hit) shifting agency and responsibility. Scientific



credibility is demonstrated through the mention of weather models, but this comes at the expense of removing the human element from the event depicted in the image.

COMPOSITIONAL METAFUNCTION

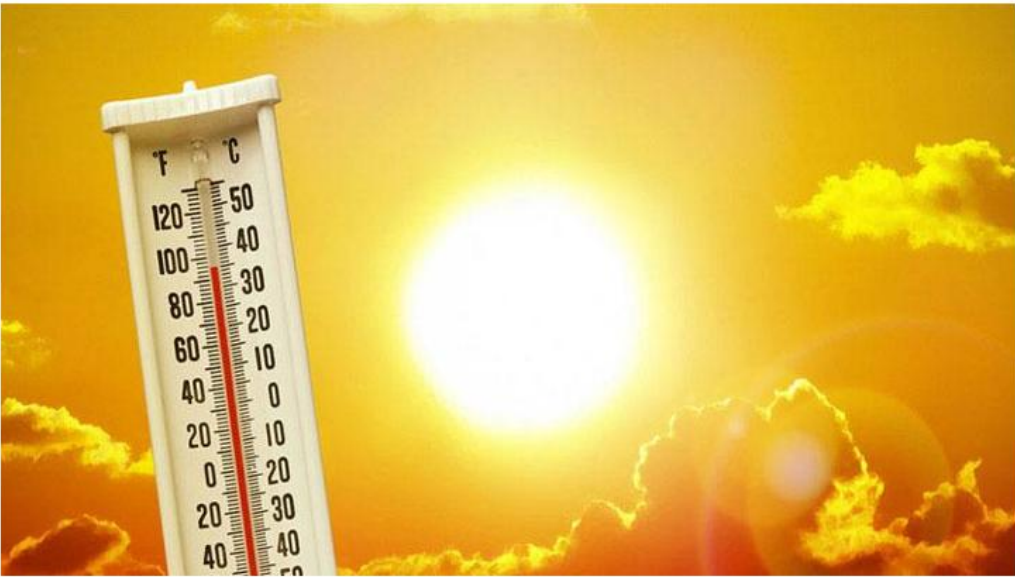
IMAGE ANALYSIS

The scene places the man centrally in the frame, making him appear visually focused. The downward-flowing water from the hose introduces a sense of movement that guides the viewer's gaze, reinforcing the theme of fleeting relief. The human figure contrasts with an empty, inhospitable landscape, creating a visual effect that emphasizes the harshness of the climate.

TEXT ANALYSIS

It is a very brief text organized in a way that leaves little room for the actual message: the headline communicates the main idea (it is historically high temperatures), while the caption helps identify the specific image on the map and in terms of time. Together, they aim to warn rather than analyze or elaborate, following the usual conventions of environmental coverage in brief.

Rising heat triggers nationwide heatwave alert in Pakistan



Temperatures across Pakistan are set to soar as a heatwave grips the country, the Pakistan Meteorological Department (PMD) warned on Sunday.

FIGURE 6: RISING HEAT TRIGGERS NATIONWIDE HEATWAVE ALERT IN PAKISTAN

## REPRESENTATIONAL METAFUNCTION

### IMAGE ANALYSIS

In the picture, a thermometer is displayed in the foreground, clearly indicating the rising temperature. The intense rays in the background symbolize the extreme heat about to emerge behind the sun. The visual elements, the sun and the thermometer, are the main focal points, creating a clear impression of a heatwave.

The temperatures recorded by the thermometer indicate extremely high levels that are far above normal, emphasizing the severity of the heatwave. The visual intensity of the heat is conveyed by the yellow, bright colour of the sky and the sun, and highlights the environmental stress caused by the high temperatures.

The colour hues of the picture represent the idea of heat, emphasizing the rise in temperatures that is expected to occur nationwide.

### TEXT ANALYSIS

The title, "Heatwave alert across Pakistan as temperatures soar", confirms this by highlighting the main topic: the heatwave alert issued due to rising temperatures. The term triggered suggests that the heat has intensified to a level where intervention is needed to protect the population from the health risks of excessive heat.

The text states that the Pakistan Meteorological Department (PMD) has issued an alert as an official response to address the risks of the heatwave. The alert warns of the anticipated soaring temperatures across the country, prompting both the government and the public to respond actively.

The text links the heatwave to a national problem across different regions of Pakistan. It describes the heatwave as a potentially dangerous environmental event that could cause discomfort and health issues, highlighting the need for official intervention.

## INTERACTIONAL METAFUNCTION

### IMAGE ANALYSIS

The main characters of the picture are the thermometer and the sun, which symbolize the rising temperatures and the intense heat that will soon affect the population. The rising mercury visually represents the environmental shift towards a hotter climate.

The sun is not a passive onlooker in this image, but it is the natural force that directly influences the temperature of the Earth. The thermometer is a measuring device, and its use indicates the scientific observation of the rising temperature.

### TEXT ANALYSIS

The active subjects in the text are the Pakistan Meteorological Department (PMD), which issued the heatwave alert and published essential data about the approaching heat. The fact that the PMD is an authoritative body underlines the urgency of the situation and the scientific grounds for the alert.

The passive participants in the text are the citizens of Pakistan. They are the ones who will receive the warning issued by the PMD and will bear the brunt of the heatwave, needing to take measures to protect themselves.

## COMPOSITIONAL METAFUNCTION

### IMAGE ANALYSIS

The thermometer is placed in the foreground, highlighting the rising temperatures as the main concern. The image of the sun in the background reiterates the idea of heat as the driving force behind extreme weather. This setting emphasizes the elements of nature, the heat accumulation, and sun exposure as the key elements of the story.

High temperatures recorded by the thermometer are visually striking, and the upcoming heatwave becomes the main focus. The ominous yellow sky and sun serve as a visual reminder of the threatening heat approaching, which means that precautionary measures should be taken.

## TEXT ANALYSIS

The headline and the following text deliver a very clear and well-organized message. The headline is phrased as a summative statement, immediately informing the reader of the risk of a heatwave, while the rest of the text elaborates on the government's preparations, including the PMD issuing the alert.

The layout of the text prioritizes the threat of the heatwave and the government's response to ensure the public knows what actions to take. Rising temperatures and the national scale of the event make the heatwave a countrywide issue, affecting the entire nation.

## DISCUSSION

This analysis of the selected news articles and their visual elements demonstrates that media coverage of a heatwave forms part of a broader framework that relies on specific discursive and multimodal strategies to construct an environmental threat and shape its perception to the public. Throughout the dataset, scientific instruments, notably thermometers, were a standard feature that served to legitimize the information. In Figures 1 and 6, the thermometer itself is prominently placed in the foreground, serving as the visual focal point of the piece and anchoring the story in objective data, thus bolstering the authority of meteorological organizations. The scientific imagery echoes previous research suggesting that references to empirical evidence can enhance perceived credibility among audiences and simultaneously aestheticize and detach social aspects of climate vulnerability.

The second pattern observed in the texts and images relates to the contrasting use of metaphorical language and emotional colouring. To illustrate this, Figure 1 depicts a heatwave warning as a technical weather forecast with measured, neutral language, whereas Figure 2 shows a group of people with someone in distress against a bright sun, suggesting unity and collective resistance through imagery. This contrast demonstrates how different models of representation selectively heighten the sense of urgency or normalize the crisis. The active framing by government departments, such as the Pakistan Meteorological Department (PMD) and the Provincial Disaster Management Authority (PDMA), presents the state as the central actor in warning and preparedness efforts, with citizens cast as recipients of expert knowledge.

The text-image interaction also reveals the conflict in how environmental phenomena are perceived—as either regular seasonal variations or as extraordinary dangers. The rain following the heatwave in Figure 3 is seen both as relief and as interference, illustrating the dual perception of environmental change as a natural cycle and as a burden to infrastructure. Headings like 'Rain breaks heat spell, sparks power disruptions' are structured to emphasise two narratives: one of advantage and one of exposure. This duality underscores the importance of eco-discourse in shaping what is viewed as a crisis, who is affected by it, and what institutional responses are considered adequate.

Interestingly, the images concerning vulnerable groups of people, like students on overcrowded vehicles in Figure 4, highlight the accumulated risks in the lives of marginalized groups. The eyes reveal that the unsafe transport infrastructure used during the severe heat situation exposes the structural inequalities that the technical

interpretations have downplayed. The representation underscores the intersection of environmental hazards with socioeconomic disadvantage and advocates for sociolinguistic arguments that discourse may be neutral, but it is always influenced by the broader issues of power.

Furthermore, the repetition of terms like 'historic highs' and 'record temperatures' in the headlines suggests an effort to portray heatwaves as an unprecedented phenomenon that requires extraordinary measures. However, the actual cause of anthropogenic climate change is not always mentioned, and some ambiguity about causation is maintained. This omission stems from media tendencies to highlight emerging threats while avoiding the difficult issue of accountability.

Overall, the evidence helps us visualize how multimodal assets such as imagery, symbolism, scientific expertise, emotional language, and storytelling come together to portray the heatwave as a natural disaster and a reflection of societal sustainability challenges. The results confirm that media narratives are not merely about informing people about the state of the environment but actively shape the perception of urgency, vulnerability, and agency. These constructions have significant consequences for how people perceive the danger of climate change and emphasise the need for a whole-of-community approach to addressing the issue.

## CONCLUSION

The study, using the Pakistani case as an example, shows that media coverage of heatwaves combines professional images, institutional language, and emotional visuals to influence how the public perceives environmental risks. These texts and images present heatwaves as serious, yet occasional threats that require immediate action, such as using thermometers, emergency headlines, and highlighting vulnerable groups. However, the tendency to avoid direct references to climate change limits understanding of systemic causes. Overall, the findings indicate that multimodal eco-discourse not only informs audiences but also actively influences how environmental issues are prioritized and addressed, with the power of language and imagery mainly raising awareness about sustainability while also constraining meaningful actions.

## FINDINGS

- Thermometers are essential in media imagery when covering heatwaves, grounding the data in scientific authority. This both boosts the credibility of alerts and removes the human aspect of climate risk.
- Emotional imagery like depicting people in distress or students in hazardous learning environments emphasizes our public vulnerability. The urgency created by such visuals is arguably a selective vulnerability, where systemic or widespread environmental causes are either used as decoration or not shown at all.
- PMD and PDMA are examples of government institutions that actively speak out, issue alerts, and issue precautions. Meanwhile, the public is often portrayed as passive recipients, limiting community-based agency in the environmental sphere.
- Headlines use scare words like "historic highs" and "nationwide alert" to describe heatwaves as terrifying events. Nevertheless, they frequently exclude any mentions of climate change, presenting them as independent instead of systemic crises.
- Visual-text pairings (visuals with accompanying textual captions) support the double narratives—natural hazards and infrastructural failures—yet rarely link them to anthropogenic climate change. This deliberate vagueness reduces



accountability, which, in turn, prevents the public from quickly responding with plans to address the issue.

- Media narratives highlight the severe hardships faced by marginalized groups, such as students who must travel in extreme heat to reach schools and universities. Behind these stories, structural inequalities become evident, and socio-economic status acts like an amplifier of environmental risks.
- Rain illustrates duality as both a good and bad omen—ending heatwaves and causing blackouts. This eco-discursive ambivalence reflects society's reliance on fragile infrastructure amid changing environmental conditions.
- Potential environmental threats are often described in reports as technical issues, using scientific jargon and illustrations that create a detached, objective tone. This approach reduces emotional engagement, making it harder to motivate the public to get involved.
- Individual coping mechanisms—such as the man spraying himself with water—shown through images demonstrate how people respond to extreme survival situations, but they do not critically examine systemic failures and long-term solutions to climate stressors.
- The eco-discourse in Pakistani news uses a mix of science-driven framing and emotional appeals to influence perceptions of urgency and vulnerability, while avoiding structural critiques of climate change.

## RECOMMENDATIONS

Recommendations can be made based on these findings regarding which media systems should include more specific calls to highlight the links between heatwaves and climate change, in order to promote a more comprehensive understanding of environmental issues. Balance between urgency and context: news coverage should aim to present the situation clearly, but it must also counteract the potential alarm that a story might cause. This involves not only highlighting immediate emergencies but also emphasizing the underlying causes and solutions. Additionally, reporting should consider the needs of diverse communities affected by climate change, as well as the perspectives of climate science experts, to make coverage more inclusive and insightful. Finally, visual and textual representations used by media outlets should strive to encourage a proactive stance and shared responsibility, rather than portraying the audience as passive recipients of warnings.

## REFERENCES

- Bristow, G., & Wells, P. (2005, November 18). Innovative discourse for sustainable local development: a critical analysis of eco-industrialism. *International Journal of Innovation and Sustainable Development*, 1, 168-179.
- Bruder, J., & Bouherar, S. (2023, June 2). Editorial: Language research on sustainability, ecology, and pro-environmental behavior. *Frontiers in Psychology*.
- Czerwińska, J., & Wielgosiński, G. (2019). CHANGES IN THE POLLUTION OF LODZ VOIVODSHIP RAINWATER AS A RESULT OF CHANGES IN POLLUTANT. *Acta Innovations*, 30, 31-37.
- Ecolinguistics: Exploring the Intersection of Language, Ecology, and Society*. (2024). Retrieved from University of Karbala - College of Education for Humanities: <https://cohe.uokerbala.edu.iq/wp/ecolinguistics-exploring-the-intersection-of-language-ecology-and-society/>
- Edo, G. I., Itoje-akpokiniovo, L. O., Obasohan, P., Ikpekor, V. O., Samuel, P. O., Jikah, A. N., . . . Oghrro, E. E. (2024). Impact of environmental pollution from human

- activities on water, air quality and climate change. *Ecological Frontiers*, 4(5), 874-889.
- Emike, A. J., Sanni, A., Agu, M. N., & Olusanya, A. M. (2021, December). Introducing Sociolinguistics. *Bulletin of Advanced English Studies (BAES)*, 6(2), 36-44.
- Hartley, J. M., Stevenson, K. T., Pereira, S., Peterson, M. N., Lawson, D. F., & Martinez, B. (2023, January 12). How a marine debris environmental educational program plays to strengths of linguistically diverse learners. *Educational Psychology, Frontiers in Education*.
- Harvey, J. A., Tougeron, K., Gols, R., Heinen, R., Abarca, M., Abram, P. K., . . . Desne, N. (2022, November 07). Scientists' warning on climate change and insects. *Ecological Monographs*, 93(1). Retrieved from <https://doi.org/10.1002/ecm.1553>
- Jancsary, D., Höllerer, M., & Meyer, R. (2016). Critical analysis of visual and multimodal texts. In R. Wodak, & M. Meyer (Eds.), *Methods of Critical Discourse Studies* (3rd ed., pp. 180-204). London: SAGE.
- LaDochy, S., & Witiw, M. (2023, September 23). California Weather and Air Pollution. In *Fire and Rain* (pp. 185-196). Cham, Singapore: Springer.
- Lin, B., & Ling, C. (2021, November 01). Heating price control and air pollution in China: Evidence from heating daily data in autumn and winter. *Energy and Buildings*, 250.
- Livesley, S. J., McPherson, E. G., & Calfapietra, C. (2016, January 01). The Urban Forest and Ecosystem Services: Impacts on Urban Water, Heat, and Pollution Cycles at the Tree, Street, and City Scale. *Journal of Environmental Quality*, 45(1), 119-124. doi:<https://doi.org/10.2134/jeq2015.11.0567>
- Miller, B. (2021). The Role of Executive Function Self Identity and Movement on Pro-Environmental Behavior. In *Going Genuinely Green: Using Science to Become More Environmentally Friendly*.
- Ponton, D. M. (2024). Language and ecology in social imaginaries: ecolinguistic perspectives. *Journal of World Languages*, 10(2), 273-279.
- Prodanovska-Poposka, V. (2024, May 26). Exploring the Intersection of Ecological Language Awareness and. *International Journal of Advanced Natural Sciences and Engineering Researches*, 8, 454-459.
- Santamouris, M. (2020, January 15). Recent progress on urban overheating and heat island research. Integrated assessment of the energy, environmental, vulnerability and health impact. Synergies with the global climate change. *Energy and Buildings*, 207.
- Shan, R. (2018). [WITHDRAWN] On the Development of College English Teachers in Local Ethnic Universities. *Proceedings of the 2018 4th International Conference on Social Science and Higher Education (ICSSHE 2018)*. Atlantis Press. Retrieved from <https://doi.org/10.2991/icsshe-18.2018.113>
- Smith, S. (2024, September 16). *How Language Shapes Environmental Attitudes*. Retrieved from Day Interpreting: <https://dayinterpreting.com/blog/how-language-shapes-environmental-attitudes/>
- Tahir, M., Murtaza, S., Nadeem, M., Waris, A. A., Ashraf, M. I., Nawaz, H., & Ayub, M. A. (2025). Shifting Smog Patterns in the Indo-Pak Region: Impressions of Climate Change. *Journal of Health and Climate Change*, 4(1).
- Terry, J. P., Jia, G., Boldi, R., & Khan, S. (2018, November). The Delhi 'gas chamber': smog, air pollution and the health emergency of November 2017. *Weather*, 73(11), 348-352.