

# Climate Change in News Headlines: A Study of Newspaper Coverage on World Environment Day

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## ABSTRACT

This study examines the representation of climate change in print media through an analysis of news headlines and sub-headlines published on World Environment Day (June 5th) in two prominent Hindi newspapers. The research aims to assess how climate change is framed in regional print media by using content analysis to investigate the frequency, tone, and thematic focus of climate-related coverage. The findings reveal that climate change is predominantly framed in an alarmist tone, with headlines emphasizing crises such as extreme weather events and rising temperatures. Solution-oriented headlines were less frequent and primarily focused on government initiatives and local actions. A smaller portion of the coverage adopted a neutral tone, offering informational or factual reports. Also, the study highlights a strong emphasis on issues such as pollution and environmental degradation, while less attention was given to long-term environmental policies or scientific research. This indicates a gap in comprehensive environmental journalism in regional print media.

**Keywords:** Climate Change, News Headlines, Content Analysis, Print Media, Environmental Journalism, Media Framing, Environmental Discourse

## INTRODUCTION

Climate change has emerged as one of the most pressing global challenges of the 21st century, with far-reaching implications for ecosystems, economies, and human societies. The media plays a crucial role in shaping public understanding, awareness, and discourse on climate-related issues (IPCC, 2021). Print media serves as a vital source of information for regional audiences, influencing their perceptions and policy preferences regarding climate change (Boykoff, 2011). The way climate change is framed in news coverage determines whether it is perceived as an urgent crisis, a manageable challenge, or a distant concern (Nisbet, 2009).

In India, where climate-related vulnerabilities such as extreme weather events, air pollution, and water scarcity are intensifying, the role of regional newspapers in disseminating information on climate change is especially critical (Billett, 2010). Despite the increasing relevance of climate change to public health, agriculture, and economic development, its representation in Hindi-language print media remains an underexplored area of study. Understanding how climate change is presented in news headlines is essential, as headlines serve as key indicators of news salience, capturing readers' attention and setting the tone for broader narratives (Dor, 2003). Given the wide influence of Hindi newspapers in shaping public opinion across India, analysing their climate change coverage can offer valuable insights into media priorities, biases, and thematic emphases. Previous research has shown that media coverage of climate change varies across linguistic and regional contexts,

affecting the effectiveness of environmental communication and public engagement (Shanahan, 2007; Schafer & Schlichting, 2014).

This study is particularly relevant in the context of World Environment Day, an annual event that generates significant environmental discourse. By focusing on headlines and sub-headlines published on this occasion, the research evaluates the extent to which climate change is prioritized within broader environmental reporting. The primary objectives of this study are to:

1. Analyse the frequency and prominence of climate change-related headlines in Hindi newspapers on World Environment Day;
2. Examine the linguistic and tonal characteristics of climate change reporting, identifying whether the coverage is alarmist, solution-oriented, or neutral;
3. Investigate the thematic focus of climate change-related headlines, assessing the emphasis on policy measures, scientific evidence, or socio-economic impacts; and
4. Contribute to a broader understanding of climate change framing in regional print media and its implications for public awareness and policy discourse.

By addressing these objectives, this research aims to bridge the gap in the existing literature on climate change representation in Hindi-language newspapers, offering insights into how climate issues are communicated to regional audiences in India.

## **LITERATURE REVIEW: CLIMATE CHANGE IN NEWS**

Media plays a crucial role in shaping public perceptions of climate change by influencing awareness, attitudes, and policy engagement. In India, where print media remains a dominant source of information, newspapers significantly contribute to environmental discourse (Billett, 2010). The framing of climate change in Indian newspapers has been analysed in several studies, which highlight variations in tone, focus, and depth of coverage. Research suggests that Indian media coverage is often event-driven, focusing primarily on extreme weather events, natural disasters, and government policies, rather than on systemic causes and long-term solutions (Thaker et al., 2024). While international studies indicate a gradual shift toward solutions-based reporting, Indian newspapers still largely frame climate change as a political or economic issue, often sidelining scientific perspectives (Ghosh, 2018). This reflects broader trends observed in developing countries, where political and economic interests heavily influence media narratives (Boykoff, 2008). The tone of climate change reporting in India has also drawn scholarly attention. Some studies indicate an alarmist approach that emphasizes crises and disasters, while others note a more neutral or passive tone that lacks (O'Neill & Cole, 2009) caution that although dramatic language may raise awareness, it can also lead to “climate fatigue,” desensitizing audiences over time. Framing analysis reveals that Indian newspapers tend to present climate change primarily through political or economic lenses, often neglecting scientific explanations and environmental justice dimensions (Boykoff & Roberts, 2007). Compared to media in developed nations which increasingly highlight mitigation strategies, behavioural change, and grassroots initiatives Indian newspapers

rarely issue clear calls to action or focus on community-based solutions (Schafer & Schlichting, 2014). This lack of solution-oriented reporting may reduce opportunities for public participation in climate action. A persistent gap in Indian climate journalism is the limited emphasis on actionable solutions and meaningful public engagement. Although environmental journalists and experts occasionally contribute op-eds, mainstream climate reporting often relies heavily on government sources and political commentary, with minimal reference to independent scientific research (Nisbet, 2009). This results in a fragmented portrayal of climate issues, where policy narratives often overshadow scientific evidence (Boykoff & Roberts, 2007). Despite these challenges, there is a growing recognition of the need for responsible and informed climate journalism in India. New initiatives that promote environmental reporting and encourage collaboration between journalists and scientists are beginning to shape more nuanced and comprehensive coverage (Ghosh, 2019). These efforts are vital to improving public understanding and encouraging effective policy responses (Upadhyaya, 2014). Existing research on media coverage of climate change has largely centred on global and Western contexts, with limited attention to the Indian print media landscape (Billett, 2010; Schafer & Schlichting, 2014). While some studies have examined how Indian media represents climate change, few have focused specifically on news headlines despite their crucial role in framing narratives and shaping first impressions (Ghosh, 2018). Moreover, most existing research prioritizes English-language newspapers, leaving a significant gap in the study of Hindi-language print media. Given the vast readership and influence of Hindi newspapers in India, understanding how they portray climate change is essential for a fuller picture of public discourse. This study seeks to address these gaps by conducting an in-depth content analysis of climate change headlines in Hindi newspapers. It examines not only the frequency and tone of headlines but also their framing strategies and potential implications for public engagement. The findings aim to contribute to the broader discourse on climate communication and support more effective media practices that enhance awareness and inspire policy action.

## METHODOLOGY

This study employed a mixed-methods content analysis to examine how climate change is represented in the headlines of two prominent Hindi newspapers published on World Environment Day (June 5th) between 2020 and 2024. The newspapers were selected based on their wide circulation, significant regional reach, and accessibility through digital and print archives. Dainik Bhaskar has a daily circulation of approximately 4 million copies and a readership of 15 million across 66 regional editions, particularly in Madhya Pradesh, Rajasthan, and Bihar. Prabhat Khabar publishes 15 regional editions across Bihar, Jharkhand, and West Bengal, with a daily circulation of approximately 1.5 million copies. The study analysed headlines and sub-headlines published specifically on June 5th for each year between 2020 and 2024. Only those items that explicitly mentioned climate change or thematically related topics such as pollution, extreme weather, or government climate policies were included in the analysis. A total of 130 headlines were collected from both newspapers. Each headline was coded using a structured framework that included three categories, First Tone- Alarmist, neutral, optimistic/solution-oriented second Theme- Pollution and air quality, afforestation and green initiatives, climate change and extreme weather, water conservation, government policies, environmental recovery during lockdown, and activism, third Framing-Scientific, economic, political, and social

Quantitative analysis was conducted to assess the frequency, yearly distribution, and thematic patterns of the headlines. Qualitative analysis focused on the linguistic features, framing strategies, and emerging narrative trends observed in selected headlines. A detailed coding manual was developed to guide the analysis. Inter-coder reliability was ensured through independent coding by multiple researchers, with discrepancies resolved through discussion and consensus. Cross-validation with existing literature helped establish the credibility and validity of the findings. This methodological approach enabled a comprehensive analysis of how Hindi print media frames climate change. It provides valuable insights into the tone, focus, and depth of climate journalism in regional Indian newspapers.

## FINDINGS

This study identified 19 climate-related news headlines published on World Environment Day (June 5) between 2020 and 2024. The number of headlines increased over the years, with a notable dip in 2021 and 2022 (Figure 1). The highest number of climate-related headlines (7) was recorded in 2024. In contrast, no headlines explicitly focused on climate change were published in 2020, largely due to the global COVID-19 pandemic, which led to nationwide lockdowns, halted industrial activity, and limited news coverage on non-pandemic issues.

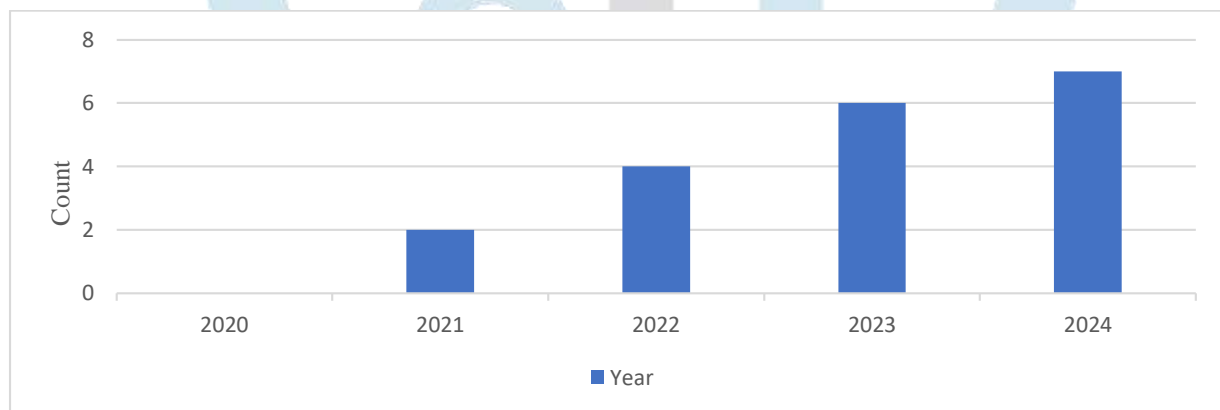
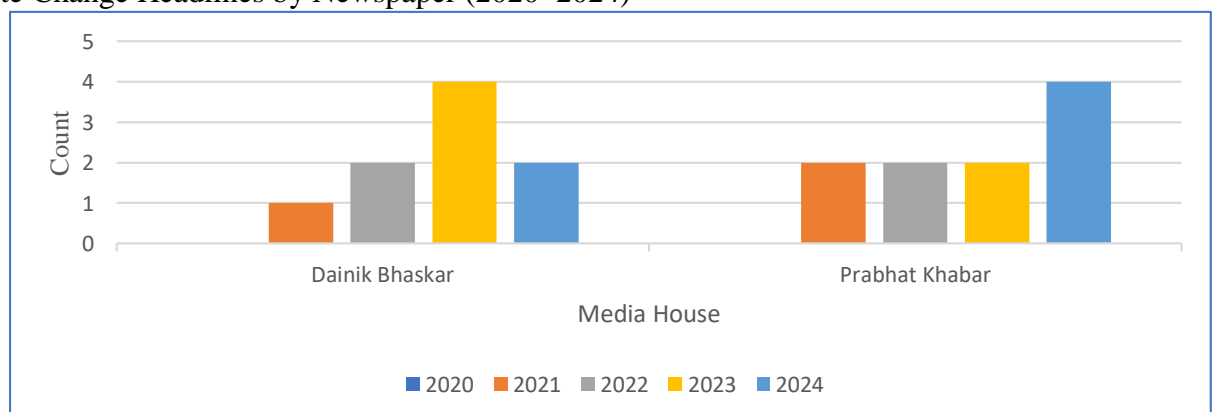


Figure 1. Climate Change Coverage per Year (2020–2024)

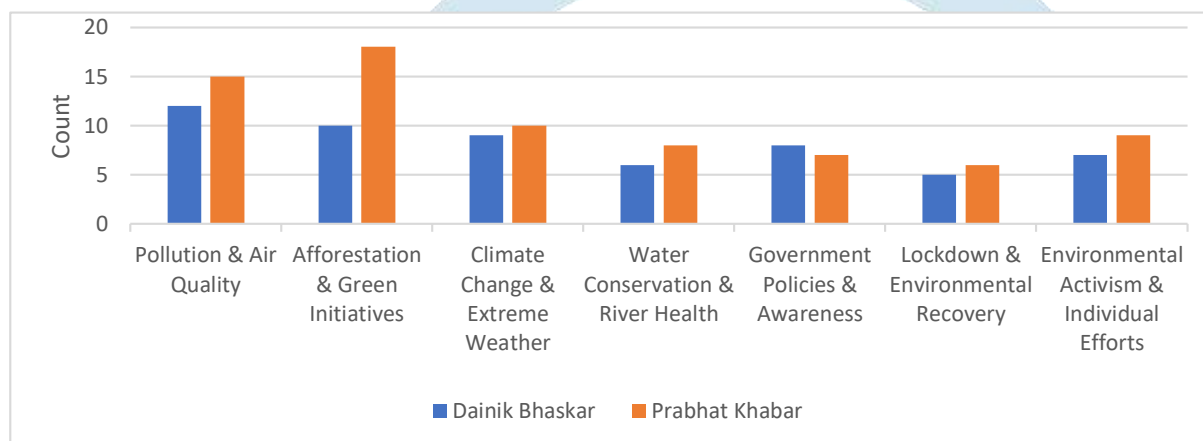
Traditional Hindi print media such as Dainik Bhaskar and Prabhat Khabar showed a surge in climate-related headlines on June 5 in the years 2023 and 2024. Both newspapers published the lowest number of such headlines in 2020, reflecting the pandemic's impact on editorial priorities (Figure 2).

Figure 2. Climate Change Headlines by Newspaper (2020–2024)



A total of 130 news headlines collected from both newspapers were categorized into seven key themes (Figure 3) Pollution & Air Quality, Afforestation & Green Initiatives, Climate Change & Extreme Weather, Water Conservation, Government Policies, Environmental Recovery During Lockdown, Activism The most frequently covered themes were Afforestation & Green Initiatives (28 headlines, 21%) and Pollution & Air Quality (27 headlines, 20%), followed by Climate Change & Extreme Weather (19 headlines, 14%). However, explicit references to "climate change" remained infrequent, with newspapers often framing environmental issues in broader ecological or disaster-related contexts.

Figure 3. Headlines Categorized by Theme



The tone of headlines was categorized into three types: alarmist, neutral, and optimistic (Figure 4). Alarmist Tone (30 headlines, 22%): These headlines emphasized urgency and environmental degradation. Examples include: "धरती बचाने को बेटियों के नाम से करते हैं पौधारोपण" (Planting trees in daughters' names to save the Earth) "धरती को बचाने के लिए हमें चार पृथ्वी की जरूरत पड़ेगी" (We will need four Earths by the end of this century if we do not act now) Neutral Tone (61 headlines, 46%): Most headlines adopted a factual or event-driven approach. They reported on statistics, government initiatives, and campaigns without emotive language. For example: "प्रदूषण कम हुआ है मगर खतरा बरकरार" (Pollution has decreased, but the threat remains) Optimistic Tone (39 headlines, 32%): These highlighted solutions and progress in environmental initiatives. For instance: "भारत की स्वच्छ ऊर्जा में प्रगति - कार्बन उत्सर्जन में 15 प्रतिशत की कमी" (India's progress in clean energy – 15% reduction in carbon emissions)

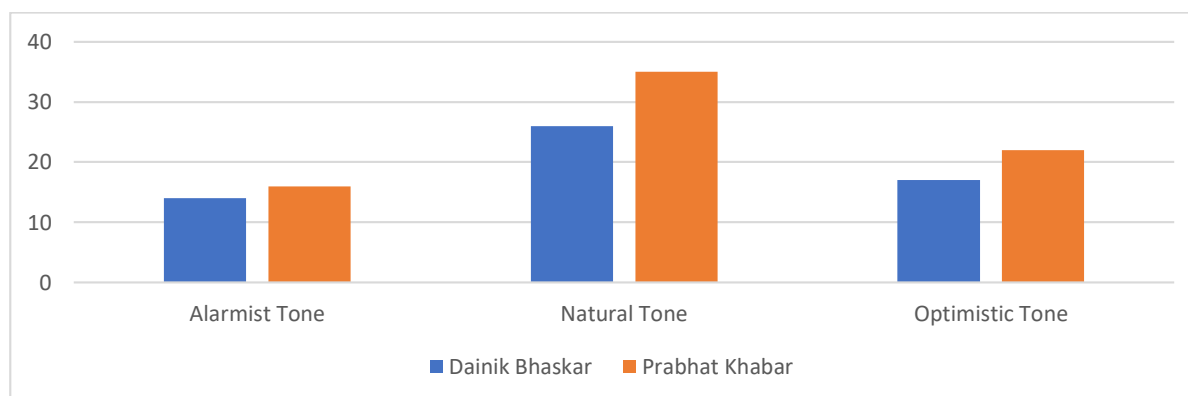


Figure 4. Headlines Categorized by Tone



Despite the frequent mention of environmental concerns like heatwaves, pollution, and water scarcity, direct discussions of climate change were sparse. Most coverage centered around seasonal events, campaigns, and human-interest stories rather than long-term environmental trends or investigative reporting on climate policies. Headlines often portrayed tree-planting initiatives as the primary solution to environmental degradation, while systemic issues such as industrial emissions, fossil fuel dependency, and climate policy gaps were underrepresented. This indicates a limited presence of investigative environmental journalism in regional print media.

The framing analysis reveals that climate change reporting in Hindi newspapers is presented through four main lenses: Scientific Framing: Occasionally, headlines referenced scientific findings (e.g., "गर्मी के असर से तनाव बढ़ेगा, प्री-टर्म बर्थ बढ़ेगा" – Heat stress will increase, leading to more premature births). However, such references were infrequent and lacked depth. Economic Framing: Some headlines linked environmental issues to economic growth and energy policy, such as: "भारत की स्वच्छ ऊर्जा में प्रगति - कार्बन उत्सर्जन में 15 प्रतिशत की कमी" Political Framing: Government policies and international climate agreements were frequently mentioned, often without critique or analysis. Social Framing: Many headlines highlighted grassroots actions, community efforts, and awareness campaigns, focusing on local environmental stewardship. While all four frames were present, political, and economic narratives often overshadowed scientific discussions. This can shape public perception of climate change as a governance issue rather than a scientific or systemic concern.

The study finds that while environmental issues receive substantial attention in Hindi print media, the coverage of climate change remains inconsistent and largely superficial. Although some headlines encouraged individual action such as rainwater harvesting or afforestation there was limited reporting on comprehensive policy solutions or long-term strategies. For instance, a headline like "बारिश का पानी रोकिए क्योंकि हर घर बचा सकता है लाखों लीटर पानी" (Harvest rainwater, as every home can save millions of liters of water) suggests public action, but solution-based reporting remains scarce overall. Dainik Bhaskar often uses a dramatic and emotional tone, focusing on urgent environmental threats and personal stories. In contrast, Prabhat Khabar emphasizes community-driven actions and conservation initiatives, reflecting grassroots environmentalism. However, both newspapers lack critical analysis of long-term climate policies and scientific discourse.

## DISCUSSION

This research identifies thematic trends, tonal variations, and framing strategies used by print media in Bihar. The findings contribute to the broader discourse on environmental journalism by highlighting the role of regional newspapers in shaping public perceptions of climate change. The results indicate that while environmental issues receive substantial coverage in regional newspapers, explicit references to climate change are limited. Instead, headlines primarily focus on localized environmental concerns such as air pollution, afforestation, water conservation, and extreme weather events. This observation aligns with previous studies on environmental journalism, which suggest that regional newspapers tend to frame environmental issues in immediate and tangible terms rather than through broader scientific and policy-oriented lenses (Boykoff, 2011;

Schäfer & Schlichting, 2014). The prevalence of neutral (46%) and optimistic (32%) tones further suggests that climate change is often portrayed as an issue of individual responsibility and local action, rather than as a systemic crisis requiring large-scale policy interventions. While such framing can enhance public engagement, it may also depoliticize climate discourse by shifting attention away from industrial emissions, fossil fuel dependency, and governmental accountability (Carvalho & Burgess, 2005).

A key finding of this study is the event-driven nature of climate reporting. Coverage tends to spike around symbolic occasions such as World Environment Day, with an emphasis on awareness campaigns, tree plantation drives, and community activism. This finding is consistent with previous research indicating that media attention to environmental issues is often episodic and tied to symbolic events rather than sustained over time (Anderson, 2009; Schafer, 2013). While awareness initiatives and pollution control efforts are essential, the lack of investigative or analytical reporting on climate policies, carbon emissions, and international negotiations reflects a narrow scope in regional climate journalism. Compared to national and international outlets, regional newspapers often prioritize human-interest stories over complex discussions of climate science (Schmidt, Ivanova, & Schafer, 2013).

The study also finds that 22% of headlines adopted an alarmist tone, emphasizing environmental degradation, extreme weather events, and pollution-related crises. This aligns with previous research on climate risk communication, where alarmist narratives are often used to evoke urgency and capture audience attention (O'Neill & Cole, 2009). However, without accompanying scientific explanations or policy contexts, such narratives may lead to climate fatigue, reducing the likelihood of sustained public engagement. Conversely, the optimistic tone presents in 32% of headlines reflects a journalistic effort to focus on solutions. These include tree-planting initiatives, clean energy progress, and grassroots conservation movements. This approach aligns with the emerging trend of solutions journalism, which presents climate change as a challenge that can be tackled through innovation, collaboration, and proactive community involvement. However, an overemphasis on individual responsibility can oversimplify the systemic nature of the climate crisis, as suggested by research on climate communication (Moser, 2010). The study also points to a lack of critical engagement with government policy, corporate accountability, and industrial emissions in the coverage. This suggests that climate change is still perceived as a neutral or non-political issue in Hindi-language media. In contrast to global outlets that extensively report on international climate summits, carbon pricing, and policy frameworks (Boykoff & Roberts, 2007), regional newspapers in Bihar largely frame climate change through local environmental issues and seasonal events.

The implications of such framing are significant. When newspapers focus predominantly on pollution control and tree plantation drives, other critical aspects of climate mitigation and adaptation such as sustainable urban planning, renewable energy transitions, and climate resilience policies remain underreported. This study underscores the importance of enhancing the depth, continuity, and scientific grounding of climate journalism at the regional level to foster a more informed and action-oriented public discourse.

## CONCLUSION

The findings reveal that while climate-related issues receive considerable media attention, explicit discussions on climate change as a systemic crisis remain limited. Coverage is predominantly localized, focusing on pollution control, afforestation, and community-driven initiatives. These topics are often framed in a neutral or optimistic tone, rather than as elements of a critical environmental emergency. The study highlights a notable gap in climate policy discourse, with minimal coverage of global climate negotiations, carbon emissions, and industrial accountability. Instead, the framing of climate issues tends to be event-driven, with noticeable spikes in reporting around symbolic environmental days such as World Environment Day. This pattern reflects a broader trend in regional environmental journalism, where immediate and tangible concerns are prioritized over sustained, policy-oriented, or investigative reporting. Despite these limitations, Hindi-language newspapers play an important role in shaping regional public discourse on environmental issues. By emphasizing solution-oriented journalism, these newspapers contribute to raising awareness and encouraging community engagement. However, to increase their impact, regional media must broaden their focus beyond localized environmental concerns and incorporate scientific evidence, policy analysis, and global perspectives on climate change.

Future research should explore comparative analyses between regional and national climate coverage, assess the influence of digital and social media on climate communication, and evaluate how media framing affects public perception and policy response. Strengthening journalistic capacity in climate reporting, promoting data-driven investigative journalism, and fostering critical engagement with climate policies will be vital in advancing informed and action-oriented public discourse. By bridging the gap between scientific discourse and public understanding, Hindi-language newspapers can evolve into more effective agents of climate communication. In doing so, they can play a pivotal role in cultivating a more informed, resilient, and climate-conscious society in India.

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