Research Article

A Textual Analysis of Media Frames Toward Environmental Issues in India

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ABSTRACT

Environmental sustainability and climate change are major geopolitical challenges today. Environmental protection is a global and local issue with few solutions. As governments around the world struggle with environmental politics, mass media organizations inform, advocate, and persuade for positive environmental change. Media reports, facts, and opinions on environmental issues shape public perceptions, so it's important to evaluate their contexts. This paper examines how Indian news, documentaries, and social media frame environmental issues and how framing affects public perception. Study methods include qualitative comparative and thematic analysis. The environmental topics chosen for study are megacity air quality and pollution, and coastal city natural disasters and climate change. Language, image, and visual selection are evaluated in media frame construction. The study shows that cultural, political, and ideological biases shape these stories. The effectiveness and reach of different media, especially new media, can be compared. The report recommends several media strategies to improve environmental communication and eliminate fallacies like biased frames.

INTRODUCTION

As environmental problems get worse, the search for sustainability has turned into a worldwide must. The delicate balance between human activity and the natural world has hit a turning point. The effects of our actions are no longer limited to specific areas but can be felt all over the world. In this context, the media's role as a way for people to talk about the environment becomes very clear. This essay looks at the complicated world of media framing by breaking down how different media outlets present environmental problems to the Indian public. This study looks at how air quality problems are portrayed in big cities and how disasters caused by climate change are talked about in coastal areas. The goal is to find the cultural, political, and ideological strings that hold people's views about the environment together. We want to show how the media can shape, steer, and sometimes skew the environmental talk by carefully comparing and thematically grouping different types of media. The results are meant to not only show how the media works now, but also how to make environmental communication more fair and effective so that people are well-informed and ready to join the environmental trend of our time.

Background

Imagine Earth not as a flat sphere but as a beautiful fabric made from the living things around us. Every part, from tall rainforests to coral reefs full of fish, is important to the whole, keeping life going and feeding the world. Protecting this tapestry so that its bright colors don't fade and its threads don't come apart is what environmental survival means. Every part of our linked world hears this call to action, and the problems we face, like climate change, biodiversity loss, pollution, and running out of resources, could tear the world apart. But light shines through the dark clouds. Here comes the media, who shape how people think and feel. The media shapes how people think about

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environmental problems in the same way that the loom shapes plain threads into complex patterns. Through their lens, complicated scientific data is turned into interesting stories that spark public debate and affect policy choices. Photographers show the stark scars of deforestation. Documentaries show the quiet symphony of coral reefs, and news stories go into detail about how important it is to have enough resources. These stories move people, and this inspires them to make changes, such as altering their daily routines or requesting stricter rules. And yet, the media environment is like a sword with two edges. False information can make things more complicated and slow progress. Some people choose which facts to use to support their beliefs, like climate change denial, which can slow down the fight. Here, ethical news is the most important thing because it makes sure that stories are true, fair, and based on science. Finally, environmental sustainability isn't just a trendy phrase; it's a global fabric whose threads are coming loose. Still, the media has the power to heal by telling stories that educate, motivate, and spark action. If the media uses its power in a good way, it can become the link between us and our world, making sure that its rich tapestry lasts for generations to come. We don't just read about this future; we're making it happen, one stitch at a time, so that tomorrow is better for everyone.

Problem Statement

The study aims to bridge the gap in India between media communication and effective public engagement with environmental issues.

Purpose and Significance

The purpose of the paper is to highlight the significance of understanding how media framing can influence public perceptions of environmental issues in India. The paper aims to:

- Identify the presence of cultural influences, political alignments, and ideological biases in the media's treatment of environmental stories.
- Assess the impact of these media frames on public perception.
- Analyze the framing of selected environmental issues across different media platforms, including news, documentaries, and social media.
- Compare the effectiveness and reach of different forms of media, with a focus on new media.
- Suggest approaches to improve environmental communication by media and address the fallacies in current media frames.

The significance of this study lies in its potential to enhance the effectiveness of environmental communication, thereby contributing to more informed public discourse and better environmental outcomes. By understanding and addressing the biases and restrictions in media framing, the paper seeks to pave the way for more balanced and impactful media coverage of environmental issues.

Research Question

- How does the framing of environmental issues by various media platforms in India influence public perception?
- What are the implications for effective environmental communication and policy-making?

Literature Review

This study (Vu *et al.*, 2020) examines the manner in which global climate non-governmental organisations (NGOs) construct their strategic messaging on the social media platform Facebook in order to inspire and involve their target audiences. The assessment also evaluates other facets of communications, including the impact, action, and effectiveness of climate change, as well as the temporal and spatial dimensions of climate impact.

This article (Jain, 2022) explores the significant role that both conventional and new media can play in educating and involving the public in environmental challenges and solutions. Additionally, it emphasizes the obstacles and possibilities for media in India to enhance environmental communication and awareness.

(Swain, 2022) examines the impact of media framing on public perception and behavior on climate change. The study also investigates the manner in which journalists elucidate intricate climate science, the way in which audiences assimilate conflicting signals. The competition climate stories face from other topics, and the methods through which media might involve the general public in climate change matters.

This study (Sanford *et al.*, 2023) examines the impact of emotional framing in Facebook posts by environmental activists on involvement and behavioral intentions related to environmental action. The study also investigates the impact of various emotions (such as anger, fear, hope, and pride) and diverse activities (such as mitigation and adaptation) on the efficacy of online environmental campaigns.

This book (Briesen & Das, 2023) explores how the mass media influences environmental policy in different countries. It argues that the mass media not only informs the public and politicians about environmental issues but also shapes their values and perceptions and triggers political processes that lead to environmental protection. The book compares the cases of industrialized countries such as Germany and Japan with those of emerging countries in South and Southeast Asia and examines how the mass media affects their environmental policy diversity.

The study Debahuti, C., & Tilak, G. (2020) investigates environmental concerns in India, especially the Delhi haze crisis, and the influence of media in molding public discourse and knowledge on these issues. This study examines the extent and topics covered by prominent media organizations in India about the subject of Delhi

smog. It also assesses the media's effectiveness and accountability in bringing attention to the true causes and potential solutions of the environmental disaster. In a study conducted by Sharma *et al.* (2021), the researchers analyze the portrayal of environmental issues in Indian documentaries, focusing on themes such as deforestation, pollution, and climate change. They investigate how these documentaries frame environmental problems and their implications for public awareness and policy discourse.

Drawing on these diverse studies, it becomes evident that media framing of environmental issues plays a crucial role in shaping public perceptions, influencing policy decisions, and driving individual and collective action. However, there is a need for further research to understand the nuances of media framing in specific contexts, such as India, where cultural, political, and socio-economic factors may influence communication strategies and audience responses.

Theoretical Framework

The objectives of the study relate to the social construction of reality based on the frames created by the media. Hence, framing theory as first developed by Erving Goffman, is chosen for providing a theoretical framework. The study delves into specific framing concepts like issue definition, causality attribution, and moral evaluation, comparing how they're applied to issues like air pollution and water scarcity. By analyzing existing research, it will identify dominant framing patterns and their potential influence on public perception and engagement. Ultimately, the goal is to connect this analysis to practical insights for crafting effective environmental communication strategies in India, considering cross-cultural nuances and audience demographics.

METHODOLOGY

Research Design

The study uses a qualitative approach to identify and assess media messages regarding the selected environmental issues. Since the objective of the study is to assess the meanings generated in the frames used by different mass media, the method of thematic textual analysis is selected to generate codes, themes, and meta-themes.

Textual analysis refers to analyzing different kinds of texts, like words, images, and audio-visual footage, to understand the meanings, ideas, themes, and messages embedded in them. It is different from content analysis, in which the focus is on breaking down texts into codes and counting the repetition to imply significance. In textual analysis, the goal is to understand the background and the entire range of possible meanings that a text can generate. It is important to understand the framing of issues that form public opinion and may motivate behavior change (Brennen, 2015).

The process of thematic textual analysis used for this study is described as follows:

Step 1: Collection of textual data in the form of articles, news stories, video clips, and images from various media platforms

Step 2: Identifying codes based on common words, phrases and images

Step 3: Grouping of codes into categories based on broad meanings generated

Step 4: Identifying major themes from categories that emerge as the 'frames of reference' used in content generation.

Sample Selection and Data Collection

In the past decade, much of the public discourse on environmental issues in India has been focused on air pollution levels in the megacities, particularly the National Capital Region Delhi and its surroundings. There have been active debates and discussions followed by legal and policy measures that the media have extensively covered. The next major environmental issue that has concerned the common people, particularly the poorer sections of society, is the untimely floods, droughts, and other natural calamities often linked to global climate change. These have caused heavy losses of lives and property in recent times and have gained a lot of media coverage. Hence, the study has selected these two issues for analysis.

The sample consisted of news stories in different newspapers, video clippings from television news channels, and social media posts between the years 2022 and 2023. These were mostly accessed from the internet. Criteria for inclusion were keywords like air pollution, air quality, climate change, global warming, health effects of air pollution, smog, etc. Feature stories and documentaries on natural calamities aired on TV channels in the given time period were also included to generate codes and categories. These documentaries were chosen for their relevance to the environmental issues under investigation and their potential to provide deeper insights into public discourse on these topics, such as "India's Water Crisis: A Documentary" (2019, National Geographic), The Battle Against Air Pollution" (2020, BBC Earth), Rising Temperatures: Impact on Coastal Communities" (2021, Discovery Channel), Deforestation: Consequences for Biodiversity" (2022, Netflix), and The Price of Progress: Urbanization and Environmental Degradation" (2023, Al Jazeera)

FINDINGS AND DISCUSSION

The meta-themes generated from textual analysis are presented in three categories - print, television, and online/social media.

Dominant Themes in Print Media - Newspapers

The sample consisted of 53 news reports, features and articles collected from English and Hindi national

newspapers between the years 2022-23. 35 codes were identified, which were reduced to 12 broad categories and then into seven meta-themes. Following the method of textual analysis, the focus was given to the possible meanings generated from words, phrases and images. Given below is the list of meta themes that received maximum coverage in newspapers.

- UN Climate change conferences, World Earth Summits
- Record-breaking high and low temperatures - land and ocean
- Climate change in the context of warmest summers and coldest winters, also warmest winters in specific regions
- Wildfires - mostly in foreign nations
- Sea level rises pose serious threats to low-lying coastal cities
- Water scarcity linking to climate change
- Air pollution effects in cities, including a range of health issues

The dominant framing used for these themes was mostly to warn, raise the alarm and concern. Other important frames were to educate and motivate citizens to make lifestyle changes, but these were fewer.

Dominant frames in Electronic media - Television

The sample for print media consisted of 12 news stories and eight documentaries shown in non-news genre channels. Major themes that were covered are as follows:

- Natural calamities like earthquakes, flash floods, and cyclones receive extensive coverage but only as hard news events
- International Summits and Conferences
- Major breakthroughs and discoveries in Environmental studies and monitoring
- Very unusual weather phenomenon that sparks viewer interest.

The coverage of environment-related issues on television majorly uses the news values as frames. There is a lack of deliberation and discussion of these issues beyond their descriptive value.

Dominant frames in Social/New media

India's social media has become a significant platform for environmental activism and communication, particularly in the context of air pollution and climate change. With 448 million users as of 2020, India is the second-largest social media market globally. Platforms like Facebook, Twitter, Instagram, and YouTube have enabled various actors to share information and mobilize support for environmental causes. However, the framing of environmental issues in India is not uniform or consistent, as different platforms, actors, and audiences may have different agendas, perspectives, and preferences. Factors such as cultural, political, and ideological contexts, media literacy, personal experience, social norms, and values influence this framing. Common themes and features of social media framing of

environmental issues in India from 2018 to the present include emotional framing, visual framing, temporal and spatial framing, and action and efficacy framing. These framings can influence public perception and policy-making, but they also have drawbacks, such as creating unrealistic expectations or undermining collective solutions.

Dominant Frames

Air Pollution

- #### Health Impacts
Increased focus on respiratory illnesses, cardiovascular diseases, and overall health decline due to pollution.

- #### Source Identification
Debates around industrial emissions, vehicular pollution, and agricultural burning as major contributors.

- #### Policy Action
Demands for stricter regulations, improved air quality monitoring, and public awareness campaigns.

Climate Change

- #### Extreme Weather Events
Discussions on heatwaves, floods, droughts, and their connection to climate change become more prominent.

- #### Economic Implications
Concerns about agricultural losses, water scarcity, and economic instability due to climate impacts.

- #### Renewable Energy
Growing interest in solar power, wind energy, and other sustainable solutions gains traction.

Emotional Sentiment

Air pollution
Anger and frustration towards polluters, government inaction, and immediate health consequences.

Climate Change
Fear and anxiety about future impacts, but also hope and solidarity for collective action and global solutions.

Shifting Emotions
Sentiment fluctuates based on pollution episodes, extreme weather events, and policy announcements.

Temporal Trends

Increased Awareness
A significant rise in online discussions on both air and climate change indicates growing public concern.

Evolving Frames
Frames shift over time, with climate change gaining more focus and nuance.

Citizen Activism

Online movements demand change, organize protests, and promote sustainable solutions, indicating increased public engagement.

Some examples of social media campaigns on environmental issues in India are

Environmentalists and celebrities started the #Save the Sundar bans campaign to spread awareness and protest the development of a coal-fired power plant close to the Sundarbans, the largest mangrove forest in the world and a UNESCO World Heritage Site. The campaign used hashtags, videos, petitions, and online events to highlight the ecological and social impacts of the project and demand its cancellation.

A group of concerned citizens and parents started the #MyRightToBreathe campaign to draw attention to the alarming levels of air pollution in Delhi and other cities and demand action. The campaign used hashtags, videos, petitions, and online events to highlight the health and environmental impacts of air pollution and to urge the government and the public to take urgent measures to improve air quality.

The global Fridays for Future movement, which Swedish activist Greta Thunberg started, served as the inspiration for the #ClimateStrikeIndia campaign. The campaign mobilized thousands of students and youth across India to join the global climate strikes and demand action from the government and society on the climate crisis. The campaign used social media platforms such as Twitter, Instagram, and WhatsApp to share information, stories, and calls to action on climate change.

#BeatPlasticPollution, #EndPlasticWaste, #PlasticFree, and #SayNoToPlastic India hosted World Environment Day in 2018, and this campaign was a part of it. The campaign aimed to raise awareness, inspire action to reduce the use of single-use plastic, and promote alternatives. The campaign used social media platforms such as Facebook, Twitter, and Instagram to share facts, tips, and challenges on plastic pollution and to showcase the efforts and innovations of individuals, communities, and organizations to beat plastic pollution.

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DISCUSSION

Cultural Influences

There is no doubt that the socio-cultural context of India has influenced the dominant frames identified in this study. For instance, the emphasis on health impacts in air pollution framing resonates with the cultural value placed on well-being and family. Similarly, the focus on extreme weather events in climate change frameworks aligns with the lived experiences of many vulnerable communities that face the brunt of droughts, floods, and storms. Further research could delve deeper into specific cultural narratives surrounding environmental issues. For example, analyzing how traditional ecological knowledge informs framing within indigenous communities. Additionally, exploring how cultural values like "Vasudhaiva Kutumbakam" (the world is one family) influence perceptions of global environmental responsibility would enrich the understanding of environmental communication in India.

Political Alignments and Ideological Biases

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Cross-Media Comparison

The socio-cultural context of India undoubtedly shapes the dominant frames identified in this study. For instance, the emphasis on health impacts in air pollution framing resonates with the cultural value placed on well-being and family. Similarly, the focus on extreme weather events in climate change frames aligns with the lived experiences of many vulnerable communities who face the brunt of droughts, floods, and storms. Further research could delve deeper into specific cultural narratives surrounding environmental issues. For example, analyzing how traditional ecological knowledge informs framing within indigenous communities. Additionally, exploring how cultural values like "Vasudhaiva Kutumbakam"

(the world is one family) influence perceptions of global environmental responsibility would enrich the understanding of environmental communication in India.

Implications and Recommendations

The findings of this study have several implications for environmental communication and policy-making in India. Firstly, there is a need for greater transparency and accountability in media coverage of environmental issues, with journalists and media organizations encouraged to adhere to ethical standards and principles of balanced reporting. This includes the inclusion of diverse perspectives, rigorous fact-checking, and the avoidance of sensationalism and fear-mongering.

Secondly, there is a need for collaboration and partnership between media, government agencies, civil society organizations, and academic institutions to promote evidence-based reporting and public engagement on environmental issues. This could involve the development of media literacy programs, the training of journalists and communicators, and the establishment of platforms for dialogue and debate.

Lastly, there is a need for further research to explore the effectiveness of different communication strategies and interventions in raising awareness, changing attitudes, and promoting behavioral change on environmental issues. This could include longitudinal studies tracking the impact of media campaigns, audience surveys assessing knowledge and perceptions, and content analyses evaluating the framing of environmental stories over time.

CONCLUSION

This study analyses media information from various platforms to shed light on environmental challenges in India. The findings demonstrate the complex interaction of cultural, political, and economic forces on media narratives.

Print media focuses on climate change, record temperatures, wildfires, sea-level rises, water scarcity, and air pollution. Alarm, concern, and warning are the main goals, with fewer attempts to educate and urge lifestyle changes.

However, television covers natural disasters, international meetings, environmental breakthroughs, and unexpected weather. However, they are not debated beyond their descriptive utility.

Social media has become a major tool for environmental action and communication, especially around air pollution and climate change. Cultural, political, and ideological frameworks, media literacy, personal experience, societal conventions, and beliefs shape environmental challenges. Health, source identification, policy action, extreme weather, economics, renewable energy, and emotion dominate.

In conclusion, while each media platform frames environmental challenges differently, all channels need more consistent, informed, and solution-oriented conversations. This may improve public knowledge, policy-making, and environmental protection.

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