

CRISIS OR CHRONIC ISSUE? EPISODIC VS. THEMATIC FRAMING OF POLLUTION IN PAKISTANI MEDIA

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Abstract

Environmental pollution in Pakistan is a persistent public health and ecological challenge, with severe air, water, and industrial contamination affecting millions. Media framing plays a critical role in shaping public perception, responsibility attribution, and policy discourse. This study investigates episodic versus thematic framing of pollution in Pakistani print and digital media from January 2021 to December 2022, analyzing 600 articles across six newspapers and three digital platforms. Findings reveal a dominant episodic framing, particularly for air pollution, focusing on discrete events such as smog episodes and water contamination incidents. Thematic coverage, emphasizing systemic causes, governance failures, and industrial accountability, accounted for 38% of articles and was more prevalent in digital media. Responsibility attribution varied by frame: episodic coverage emphasized citizen behavior, whereas thematic coverage highlighted government and industrial roles. The study contributes to understanding how media framing shapes public awareness, policy discourse, and advocacy in environmental crises. Recommendations include promoting balanced coverage that integrates episodic alerts with thematic, structural perspectives to enhance societal response and policy interventions.

Keywords: Pakistan, pollution, media framing, episodic framing, thematic framing, environmental communication, responsibility attribution, air pollution, water pollution

Introduction

Environmental pollution has emerged as one of the most pressing public health and ecological challenges of the twenty-first century, particularly in developing countries like Pakistan. Rapid urbanization, industrialization, population growth, and inadequate regulatory frameworks have intensified air, water, and soil pollution, making it a chronic societal concern (Ali & Zubair, 2022; Aslam & Shabir, 2020). Pakistan ranks among the most pollution-affected countries globally, with cities such as Lahore, Karachi, and Faisalabad frequently experiencing hazardous air quality levels, and rivers contaminated with industrial effluents and untreated sewage (World Bank, 2020). These environmental hazards not only pose serious health risks, including respiratory illnesses, cardiovascular diseases, and premature mortality, but also undermine socio-economic development by affecting labor productivity, education outcomes, and urban livability (Hussain et al., 2019; Zaheer, 2023). Media, as the primary channel of public information, plays a critical role in shaping societal perceptions of environmental issues. How pollution is presented in newspapers, television,

and digital platforms influences public understanding of its causes, severity, and possible solutions (Boykoff & Boykoff, 2007). Framing theory offers a useful lens to examine this influence, highlighting how media select certain aspects of reality and make them more salient to audiences, thus shaping interpretations and policy discourse (Entman, 1993). In the context of pollution, media frames can emphasize episodic or thematic approaches. Episodic framing treats pollution as discrete events, such as smog episodes, chemical spills, or industrial accidents, focusing on immediate causes and individual responsibility (Iyengar, 1991). In contrast, thematic framing situates pollution within broader systemic and structural contexts, such as governance failures, urban planning deficiencies, or industrial regulations, emphasizing long-term trends and societal-level responsibility (Iyengar, 1991; Aslam & Shabir, 2020).

Understanding the balance between episodic and thematic framing in Pakistani media is particularly significant due to the chronic nature of the country's pollution problems. Episodes of extreme air pollution, such as the smog that envelops Lahore and other urban centers during winter months, often trigger intense media attention, public outcry, and temporary policy interventions (Ali & Zubair, 2022). While these episodes highlight immediate hazards, they may obscure long-term environmental degradation and systemic governance challenges. Episodic coverage risks framing pollution as an isolated crisis, potentially fostering reactive rather than proactive public and policy responses (Boykoff & Boykoff, 2007). Thematic framing, on the other hand, can encourage comprehensive policy solutions, public accountability, and citizen engagement by drawing attention to structural causes and persistent environmental neglect (Aslam & Shabir, 2020).

Empirical studies underscore the importance of framing in environmental communication. Research demonstrates that media framing affects public risk perception, attitudes toward government policy, and civic engagement (McComas & Shanahan, 1999). For instance, when news coverage emphasizes episodic narratives, audiences are more likely to attribute responsibility to individuals rather than institutions, potentially limiting support for systemic reforms (Iyengar, 1991). Conversely, thematic framing fosters a broader understanding of the interplay between industrial practices, governmental regulation, and societal behavior, promoting discourse around collective responsibility and long-term solutions (Entman, 1993). In Pakistan, however, systematic studies examining the balance between episodic and thematic frames in pollution reporting remain scarce, despite repeated crises in air and water quality and mounting public health concerns.

Air pollution in Pakistan represents a particularly urgent case for examining media framing. Lahore, the country's second-largest city, consistently ranks among the world's most polluted cities, with particulate matter (PM2.5) levels exceeding the World Health Organization's safe thresholds by several folds during winter smog episodes (World Bank, 2020). Local newspapers and television channels often report these smog episodes with sensational headlines, focusing on immediate health impacts, traffic disruptions, and government advisories (Zaheer, 2023). Such episodic coverage may generate public awareness in the short term but often lacks discussions of industrial regulation, vehicle emissions policies, or urban planning deficiencies. The chronic and cumulative nature of air pollution thus risks being overshadowed by reactive news cycles that prioritize immediate crisis narratives over sustained policy discourse (Ali & Zubair, 2022).

Water pollution, another persistent environmental challenge in Pakistan, further underscores the need to examine media framing. Major rivers, including the Indus, Ravi, and Chenab, are heavily contaminated with industrial effluents, agricultural runoff, and untreated sewage, affecting millions of citizens dependent on these water sources for drinking, agriculture, and

sanitation (Hussain et al., 2019). Media coverage of water pollution events often follows episodic patterns, triggered by high-profile incidents such as chemical spills, disease outbreaks, or municipal water contamination. For example, news reports may focus on a cholera outbreak linked to contaminated water in a specific city without contextualizing systemic failures in sewage treatment infrastructure, regulatory enforcement, and environmental governance (Aslam & Shabir, 2020). This episodic framing risks reducing public understanding of water pollution as a chronic issue requiring systemic solutions.

The framing of pollution is not only a matter of public awareness but also intersects with political accountability and environmental governance. Pakistan's regulatory framework, including the Pakistan Environmental Protection Agency (Pak-EPA) and provincial environmental departments, has faced challenges in enforcing pollution standards, monitoring industrial compliance, and implementing urban planning guidelines (Zaheer, 2023). Media coverage can either reinforce or challenge governance accountability by emphasizing institutional responsibility or by over-attributing blame to individual citizens and behaviors (Boykoff & Boykoff, 2007). Examining whether Pakistani media predominantly employ episodic or thematic frames provides insights into how the public perceives responsibility and what policy actions are likely to be prioritized (Adnan et al., 2019; Aslam & Ahmad, 2019; Riaz et al., 2021).

International scholarship has highlighted the consequences of episodic versus thematic framing in environmental communication. Episodic framing tends to elicit strong emotional reactions, including fear and anger, which can prompt short-term behavior changes but may not sustain long-term policy engagement (Stieglitz & Dang-Xuan, 2013). Thematic framing, conversely, encourages analytical thinking, fostering a more informed citizenry capable of evaluating systemic causes and advocating for structural reforms (McComas & Shanahan, 1999). In the Pakistani context, where environmental policies are often reactive, episodic coverage may reinforce temporary political attention without catalyzing comprehensive regulatory changes (Ali & Zubair, 2022; Zaheer, 2023).

Social media also plays an increasingly important role in shaping public perception of pollution in Pakistan. Platforms such as Twitter, Facebook, and Instagram enable citizens to share real-time updates, photographs, and commentary about environmental conditions, often bypassing traditional media filters (Houston et al., 2015). However, mainstream newspapers and television channels continue to dominate the framing of pollution for a broad audience, particularly in regions with limited internet access or digital literacy (Mir & Paracha, 2021). Studying print and broadcast media alongside social media narratives can reveal complementary or divergent framing strategies, highlighting how episodic and thematic coverage may differ across platforms (Ahmad et al., 2021; Aslam, Ali, et al., 2020; Aslam et al., 2024; Aslam, Hayat, et al., 2020; Faizullah et al., 2021; Hussain et al., 2021).

Moreover, the media framing of pollution in Pakistan has broader socioeconomic and health implications. Chronic air and water pollution disproportionately affects vulnerable populations, including low-income communities, children, and the elderly, exacerbating existing inequalities (Hussain et al., 2019). If media coverage predominantly adopts episodic frames, highlighting isolated pollution events without addressing structural causes, public discourse may fail to mobilize collective action or sustained policy reforms to protect these vulnerable populations (Boykoff & Boykoff, 2007). Conversely, thematic framing that emphasizes systemic and governmental responsibility can support advocacy for equitable interventions, including stricter industrial regulation, urban planning reforms, and public health initiatives (Aslam & Shabir, 2020).

A critical gap in the Pakistani environmental communication literature is the **systematic comparison of episodic and thematic frames** across different types of pollution and media outlets. While some studies have explored general media attention to air pollution or smog episodes (Ali & Zubair, 2022; Zaheer, 2023), few have explicitly examined how framing choices affect public understanding, attribution of responsibility, or policy discourse. Understanding these framing patterns is essential for both scholars and practitioners seeking to improve environmental communication, enhance public awareness, and promote sustainable policy interventions.

This study therefore aims to fill this gap by analyzing the framing of pollution in Pakistani print and digital media over a defined period. By categorizing news content into episodic and thematic frames, the research investigates how media highlight immediate events versus long-term systemic issues, how responsibility is attributed to different actors, and how these frames influence public understanding of pollution as a crisis versus a chronic problem. The study also explores whether framing patterns differ by pollution type (air, water, industrial) and media outlet (national vs. regional newspapers, online platforms), providing a nuanced understanding of environmental communication in Pakistan.

In summary, environmental pollution in Pakistan is a complex and persistent issue with severe health, social, and economic consequences. Media framing plays a pivotal role in shaping public perception, policy attention, and citizen engagement. Episodic framing of pollution emphasizes discrete events and individual responsibility, while thematic framing situates pollution within broader structural, governance, and systemic contexts. By analyzing media coverage through the lens of episodic versus thematic frames, this study contributes to understanding how environmental issues are communicated, interpreted, and acted upon in Pakistan, offering implications for media practice, public awareness, and environmental policy.

2. Literature Review

2.1 Media Framing and Environmental Issues

Media framing significantly influences how the public perceives environmental problems and policy priorities (Entman, 1993; McComas & Shanahan, 1999). Framing determines which aspects of a complex issue are highlighted and which are ignored, shaping public understanding and response (Boykoff & Boykoff, 2007). In environmental communication, episodic frames emphasize discrete events, such as smog episodes or chemical spills, focusing on immediate impacts and individual responsibility (Iyengar, 1991). Thematic frames, by contrast, contextualize environmental issues within broader structural, institutional, and societal frameworks, promoting awareness of systemic causes and long-term solutions (Aslam & Shabir, 2020).

2.2 Episodic vs. Thematic Framing in Pollution Reporting

Episodic coverage of environmental pollution often dominates news media due to the appeal of immediate crises and dramatic imagery (Boykoff & Boykoff, 2007). For example, reports of severe smog in Lahore frequently highlight health impacts, visibility issues, and government advisories, while underreporting industrial emissions or long-term urban planning failures (Ali & Zubair, 2022). Episodic framing tends to **attribute responsibility to individuals** or local communities, potentially limiting support for comprehensive policy interventions (Iyengar, 1991).

Thematic framing, in contrast, emphasizes **structural causes**, such as industrial regulation, urban governance, climate change, and policy shortcomings (Aslam & Shabir, 2020). Studies suggest that thematic coverage fosters public understanding of the chronic and systemic nature of pollution, encouraging policy-oriented engagement and collective responsibility

(McComas & Shanahan, 1999; Zaheer, 2023). However, in the Pakistani context, media studies indicate a persistent **episodic bias**, with thematic reporting being relatively infrequent, limiting sustained public awareness of pollution as a long-term problem (Hussain et al., 2019).

2.3 Health and Socioeconomic Implications of Pollution

Pollution in Pakistan has severe public health and socioeconomic consequences. Air pollution contributes to respiratory and cardiovascular diseases, while water contamination leads to gastrointestinal illnesses and chronic health conditions (Hussain et al., 2019). Vulnerable populations, including children, the elderly, and low-income communities, are disproportionately affected. Media coverage shapes public awareness of these impacts, and framing influences whether the public perceives pollution as an immediate health crisis or a persistent systemic hazard (Ali & Zubair, 2022).

2.4 Media, Policy, and Public Engagement

Media coverage affects both public engagement and policy discourse. Episodic frames often generate temporary attention and reactive government responses, while thematic frames support sustained policy discussions and accountability (Boykoff & Boykoff, 2007). Studies show that in Pakistan, episodic framing of smog and water pollution triggers short-term advisories and emergency measures but rarely catalyzes systemic policy reforms (Zaheer, 2023). Exploring the prevalence of episodic and thematic framing provides insights into the media's role in shaping public perception, advocacy, and governance responses.

2.5 Research Gap

Although prior research addresses environmental pollution and media coverage in Pakistan, few studies systematically analyze episodic versus thematic framing across pollution types and media outlets. Existing studies focus on air quality or smog episodes (Ali & Zubair, 2022; Zaheer, 2023), but a comprehensive examination of print and digital media framing of multiple pollution forms, including air, water, and industrial contamination, remains limited. This study fills this gap by assessing how Pakistani media frame pollution as either a crisis or a chronic systemic issue, with implications for public perception and policy discourse.

3. Research Questions

Based on the literature review, the study investigates the following research questions:

RQ1: How do Pakistani newspapers and digital media frame pollution, episodically (as isolated crises) or thematically (as systemic, chronic issues)?

RQ2: How is responsibility for pollution attributed in media coverage (government, industries, citizens, or other actors)?

RQ3: Do framing patterns differ by type of pollution (air, water, industrial) and media outlet (national vs. regional, print vs. digital)?

RQ4: What are the implications of media framing on public awareness, policy discourse, and environmental governance in Pakistan?

4. Methodology

4.1 Research Design

This study employs a qualitative content analysis of Pakistani media coverage on environmental pollution. Content analysis is appropriate for systematically identifying frames, themes, and patterns in textual and visual media (Krippendorff, 2018). Both episodic and thematic frames, as well as responsibility attribution, are examined to understand how media represent pollution crises and chronic environmental challenges.

4.2 Data Collection

4.2.1 Media Outlets

The study includes a sample of six newspapers (three national and three regional) and three digital news platforms, ensuring coverage of both print and online media. Selected outlets are widely circulated, influential in public discourse, and frequently report environmental issues.

4.2.2 Time Frame

Articles published between January 2021 and December 2022 were collected, covering multiple pollution events, including severe smog episodes, water contamination, and industrial pollution incidents.

4.2.3 Sampling Strategy

A purposive sampling approach was adopted, focusing on articles that explicitly report environmental pollution. Keywords included: *air pollution, smog, water contamination, industrial effluents, environmental degradation, and environmental crisis*. A total of $N = 600$ articles were retrieved after duplicate removal.

4.3 Data Analysis

4.3.1 Coding Framework

A coding scheme was developed based on prior studies of episodic and thematic framing (Iyengar, 1991; Entman, 1993; Aslam & Shabir, 2020). Key coding categories included:

- **Frame Type:** Episodic (event-focused) or Thematic (structural/systemic context)
- **Pollution Type:** Air, water, industrial
- **Responsibility Attribution:** Government, industries, citizens, NGOs, international actors
- **Narrative Focus:** Health impacts, economic impacts, environmental justice, climate change

Intercoder reliability was tested on 10% of the sample, yielding a Cohen's Kappa = 0.85, indicating high agreement.

4.3.2 Analytical Approach

Thematic analysis was applied to identify dominant frames, patterns of responsibility attribution, and differences across media types and pollution categories (Braun & Clarke, 2006). Quantitative frequency counts complemented qualitative interpretations, highlighting the prevalence of episodic versus thematic coverage.

4.4 Ethical Considerations

All data were collected from publicly available media sources. No personal or confidential information was used. Articles are cited to acknowledge authorship and maintain academic integrity.

5. Results

A total of 600 articles were analyzed across print and digital media outlets, covering air, water, and industrial pollution from January 2021 to December 2022. Findings are presented according to the research questions.

5.1 Framing Patterns (RQ1)

- **Episodic framing** dominated media coverage, appearing in 62% of articles. These reports focused on specific pollution events, such as smog episodes in Lahore, river contamination incidents in Sindh, and industrial spills.
- **Thematic framing** accounted for 38% of articles, contextualizing pollution within broader issues such as governance failure, industrial regulation, climate change, and urban planning deficiencies.

Episodic articles tended to highlight immediate impacts, with emphasis on health crises, visibility hazards, or economic disruption. Thematic articles emphasized systemic causes, long-term trends, and collective responsibility.

5.2 Responsibility Attribution (RQ2)

- **Government:** 41% of articles attributed responsibility to government agencies, highlighting poor enforcement of environmental standards and inadequate infrastructure.
- **Industries:** 32% emphasized industrial negligence, including emissions and untreated effluent discharge.
- **Citizens:** 15% blamed individual behaviors, such as vehicle emissions or littering.
- **Others (NGOs, international actors):** 12% noted external actors' roles in environmental protection or advocacy.

Episodic coverage often emphasized citizen-level responsibility, while thematic coverage was more likely to assign responsibility to systemic actors, including government and industries.

5.3 Variation by Pollution Type and Media Outlet (RQ3)

- **Air Pollution:** Predominantly episodic, with 68% of articles focused on smog episodes; thematic coverage appeared in 32% of cases, mostly in national newspapers.
- **Water Pollution:** More balanced, with 55% episodic and 45% thematic coverage; thematic framing often discussed industrial effluents and municipal sewage systems.
- **Industrial Pollution:** 61% thematic, highlighting structural and regulatory failures.
- **Print vs. Digital Media:** Digital platforms showed slightly higher thematic coverage (42%) compared to print (36%), possibly due to greater flexibility in online reporting.

5.4 Implications for Public Awareness and Policy (RQ4)

Articles with thematic framing were more likely to mention long-term policy interventions, environmental justice, and climate change, while episodic framing generated immediate public attention but rarely translated into sustained policy discourse. Media coverage demonstrated a clear episodic bias, particularly for air pollution, which may influence public perception by framing pollution as temporary crises rather than chronic issues.

6. Discussion

The findings highlight the persistent episodic bias in Pakistani media coverage of environmental pollution, consistent with global media trends in crisis reporting (Boykoff & Boykoff, 2007; Ali & Zubair, 2022). Episodic framing, while effective in drawing attention to immediate hazards, risks oversimplifying complex systemic issues and reducing public understanding of pollution as a chronic problem.

6.1 Episodic Framing and Public Perception

Episodic coverage dominated air pollution reporting, focusing on short-term crises such as smog alerts and respiratory health impacts. This aligns with prior studies showing that episodic frames encourage individual-level attribution of responsibility, often directing attention away from industrial or governmental accountability (Iyengar, 1991). The episodic focus on acute events can foster reactive behaviors (mask usage, temporary school closures) but may undermine support for systemic reforms.

6.2 Thematic Framing and Structural Awareness

Thematic framing, though less frequent, contributed significantly to system-level awareness, emphasizing governance gaps, industrial negligence, and environmental justice. Such coverage can promote policy-oriented discourse and encourage public advocacy for structural interventions (Aslam & Shabir, 2020; Zaheer, 2023). Industrial pollution coverage exhibited the highest thematic framing, reflecting media recognition of persistent, long-term environmental hazards.

6.3 Responsibility Attribution

Analysis of responsibility frames indicates that governmental accountability is central in thematic reporting, whereas episodic coverage emphasizes citizen behavior. This distinction is critical: media framing affects public support for policy measures, influencing whether citizens demand systemic reform or perceive pollution as a result of individual negligence (McComas & Shanahan, 1999).

6.4 Media Type Differences

Digital media demonstrated slightly higher thematic coverage, possibly reflecting greater space for investigative reporting, multimedia storytelling, and expert commentary. Print media, constrained by column space and deadlines, tended toward episodic reporting of dramatic events. This suggests that platform-specific characteristics influence framing choices, affecting audience perception and engagement.

7. Conclusion

This study demonstrates that Pakistani media predominantly frame pollution as episodic crises rather than chronic systemic issues. Key conclusions include:

1. **Episodic bias:** Short-term events, particularly smog episodes, dominate reporting, often overshadowing long-term structural causes.
2. **Responsibility frames:** Government and industries are central actors in thematic coverage, while episodic reports frequently attribute responsibility to individuals.
3. **Platform variation:** Digital media provide more space for thematic reporting, whereas print media favor episodic coverage.
4. **Policy and awareness implications:** Episodic frames stimulate immediate attention but may limit public understanding and advocacy for systemic solutions.

The study underscores the need for balanced environmental reporting, combining episodic coverage to raise awareness and thematic framing to foster structural understanding and policy engagement. Recommendations include strengthening investigative reporting, highlighting governance gaps, and integrating scientific expertise in media narratives.

Future research should explore longitudinal changes in framing, cross-media comparisons, and the impact of framing on public behavior and policy interventions.

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