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WHO IS AT FAULT? MEDIA RESPONSIBILITY FRAMES IN REPORTING ENVIRONMENTAL POLLUTION

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Abstract
Environmental pollution has emerged as one of the most pressing global challenges, prompting scholars to investigate how news media construct responsibility for its causes and solutions. This study examines responsibility framing in environmental news coverage by analyzing how media attribute blame, identify stakeholders, and propose remedies for pollution-related issues. Using a content analysis of 420 news articles published between 2018 and 2022 in four major English-language newspapers from Pakistan and India, the study explores patterns of causal attribution, moral evaluation, and recommended actions within the reporting. Guided by Entman's framing theory and Iyengar's episodic–thematic framing model, the study identifies dominant frames such as government failure, industrial negligence, citizen malpractice, *and* transboundary responsibility. *The findings reveal that the media predominantly place responsibility on government institutions and industries, while downplaying citizen-level behavioral causes. Additionally, thematic frames were found to dominate high-profile pollution events, whereas episodic frames were more frequent in routine coverage. The study contributes to environmental communication scholarship by offering comparative insights into responsibility framing within South Asian media. It highlights the implications of such framing for public understanding, policy pressure, and cross-border environmental cooperation. Recommendations for balanced, solution-oriented reporting are offered to enhance environmental literacy and accountability through the press.*

Keywords: environmental pollution, news framing, responsibility attribution, media analysis, South Asia, environmental communication, blame frames, episodic framing, thematic framing

Introduction
Environmental pollution has emerged as one of the most critical global challenges of the twenty-first century, shaping political agendas, public policy, scientific discourse, and everyday life. From deteriorating air quality in megacities to industrial contamination of natural resources and the slow violence of climate change, pollution has become a defining feature of contemporary environmental risk (Nixon, 2011). As societies confront these multi-layered crises, news media play a central role in constructing public understanding of pollution, determining which issues receive priority attention, and shaping who citizens believe is responsible for environmental degradation. Media framing, therefore, becomes not just a methodological lens but a powerful political tool through which environmental problems are defined, interpreted, and responded to (Entman, 1993; Scheufele, 1999).
Framing theory explains how media select certain aspects of reality and make them more salient in text and visuals, particularly by defining problems, identifying causal agents, moralizing situations, and suggesting remedies (Entman, 1993). When applied to environmental issues, framing becomes especially consequential because pollution is often invisible, complex, and scientifically technical, making audiences heavily reliant on media narratives to understand its causes and consequences (Boykoff & Boykoff, 2007). Scholars agree that the ways in which news organizations assign responsibility can shape public attitudes toward environmental risks, influence perceptions of government and industry

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accountability, and ultimately affect policy preferences (Hart, 2011; Anderson, 2014). Responsibility framing, therefore, is central to the formation of environmental public opinion (Adnan et al., 2019; Aslam & Ahmad, 2019a, 2019b).

The growing field of environmental communication has shown that pollution is rarely treated as a purely scientific or ecological matter in media discourse; instead, it is embedded within political, economic, and cultural contexts (Cox, 2013). News media often negotiate between competing actors—governments, industries, scientists, activists, and citizens—leading to the construction of blame frames that reflect broader power structures (Hansen, 2019). For example, studies have found that air pollution is frequently framed as the result of individual behaviors (e.g., vehicular emissions) rather than systemic failures such as weak environmental regulation or industrial dominance (Bickerstaff & Walker, 2003). Similarly, political actors strategically shape blame narratives in ways that protect institutional interests or mobilize public support (Lyytimäki, 2011). Thus, the responsibility framing of pollution is neither neutral nor accidental—it is deeply political.

In developing countries, where state capacity, press freedom, and environmental governance vary considerably, responsibility frames often become even more contested. Research has shown that news media in many parts of Asia, Africa, and Latin America tend to underreport structural causes of pollution and overemphasize episodic or event-driven coverage, such as smog episodes or industrial accidents (Lugo-Ocando & Faria Brandão, 2016). When the media focus on episodic frames, they tend to highlight immediate events and individual responsibility, whereas thematic frames draw attention to systemic issues, institutional failures, and long-term solutions (Iyengar, 1991). This distinction is crucial because the framing of pollution as an individual problem reinforces behavioral solutions, while framing it as a structural problem demands institutional reform and policy intervention (Johnson & Fischhoff, 2020).

Despite the extensive scholarship on environmental communication, there remains a significant gap in understanding how responsibility is socially constructed across different media systems, cultural contexts, and types of pollution. While climate change coverage has been widely analyzed (Boykoff, 2011; Schäfer & Schlichting, 2014), more localized forms of pollution—such as smog, industrial waste, water contamination, and hazardous urban emissions—have received comparatively less systematic attention in framing studies (Hsu et al., 2020). Moreover, the political implications of responsibility framing are not sufficiently explored, especially in countries where environmental degradation intersects with governance deficits, industrial lobbying, weak regulatory enforcement, and geopolitical tensions.

Media responsibility frames matter because they influence how societies allocate blame and demand action. When pollution is blamed on citizens' lifestyle choices, the burden of responsibility shifts away from powerful actors such as corporations, regulatory agencies, and political institutions (Suldovsky, 2017). Conversely, when media highlight corporate negligence or governmental failure, public pressure for regulatory reforms increases (Anderson, 2014). These dynamics make responsibility framing central to environmental justice debates. The disproportionate impact of pollution on marginalized communities, often described as environmental racism or environmental inequality, can also be rendered visible or invisible through framing (Pellow, 2018). Thus, the framing of responsibility can either reinforce or challenge existing inequities.

Furthermore, the rise of digital and social media has transformed how pollution-related information is circulated, contested, and reframed. While mainstream journalism continues to shape dominant narratives, online platforms provide spaces for counter-framing, citizen activism, and alternative interpretations (Schäfer, 2016). However, digital environments also facilitate misinformation and politicization of environmental issues, further complicating

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responsibility attribution (Kahan, 2015). This interplay between traditional and digital media makes the study of responsibility framing more urgent and complex (Ahmad et al., 2021; Aslam et al., 2020; Riaz et al., 2021).

Given these scholarly, political, and societal stakes, this research seeks to investigate how news media construct responsibility frames in reporting environmental pollution. The central question guiding the study is: Who is portrayed as responsible for environmental pollution, and how are these responsibility frames constructed and justified in news narratives? Building on framing theory, particularly Entman's conceptualization of causal and treatment responsibility, the study examines how different actors are positioned in news stories and how these positions reflect ideological, political, and institutional interests.

This study is motivated by three key considerations.

First, the salience of pollution in public discourse has increased dramatically over the past decade due to worsening air quality, industrial accidents, and global climate pressures (World Bank, 2021).

Second, responsibility framing has significant implications for environmental governance, shaping how societies allocate accountability and support various policy options.

Third, there is a lack of comparative and systematic research that integrates environmental communication with political communication to analyze responsibility framing in a holistic manner.

By examining media coverage across selected newspapers, this study contributes to a deeper understanding of how environmental pollution is framed in journalistic narratives and how these frames shape public knowledge, policy debates, and power dynamics. It also extends the literature on framing by highlighting the political nature of responsibility attribution and the ideological functions of environmental narratives. The findings hold relevance for scholars of communication, environmental policy, political science, and media studies, as well as for journalists, policymakers, and environmental advocates seeking to promote more informed and equitable public discourse.

2. Literature Review

Environmental communication research has long examined how news media shape public understanding of ecological issues, particularly pollution, climate change, and environmental risk (Cox, 2013; Anderson, 2014). Because environmental problems are often abstract, complex, and scientifically mediated, the public relies heavily on mass media for cues to interpret environmental risks and assign responsibility (Boykoff & Boykoff, 2007). The literature consistently demonstrates that media framing has a strong influence on how environmental issues are understood, prioritized, and linked to actors seen as accountable (Hansen, 2019).

2.1. Media Framing of Environmental Issues

Framing theory provides a useful lens through which to understand how news media construct meaning around complex social issues. Entman (1993) conceptualizes framing as selecting aspects of reality and making them more salient in ways that define problems, diagnose causes, make moral judgments, and suggest remedies. This four-function model has been widely applied in environmental communication research (Nisbet, 2009). Studies have shown that environmental stories are often framed through scientific, political, economic, or moral lenses, each of which can shift the boundaries of responsibility (Schäfer & Schlichting, 2014).

Environmental coverage frequently employs episodic rather than thematic frames (Iyengar, 1991), focusing on discrete events such as smog episodes, industrial accidents, or extreme weather. Episodic framing tends to attribute responsibility to individuals or immediate circumstances, while thematic framing contextualizes problems within long-term structural

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factors such as industrial practices, urban planning failures, or weak regulatory systems. Research demonstrates that episodic frames diminish systemic accountability and promote more individualized responsibility attributions (Hart, 2011).

2.2. Responsibility Framing in News Media

Responsibility framing is central to environmental communication because it dictates who is blamed for environmental degradation and who is expected to fix it. Scholars differentiate between *causal responsibility* (who or what caused the problem) and *treatment responsibility* (who should address it) (Iyengar, 1991; Entman, 1993). These frames shape public opinion, policy support, and social mobilization.

Research on climate change communication reveals that many media outlets overly emphasize individual behavioral responsibility—consumption habits, lifestyle choices—while downplaying structural contributors such as industrial emissions or governmental inaction (Boykoff, 2011; Suldovsky, 2017). This imbalance can obscure systemic drivers of pollution and reinforce neoliberal narratives of personal responsibility (Kenis & Mathijs, 2014).

Responsibility frames also vary across regions and political systems. In Western democracies, media often highlight partisan conflicts or governmental failures (Anderson, 2014), while in developing nations, environmental issues are sometimes depoliticized or shaped by state influence over media (Lugo-Ocando & Faria Brandão, 2016). Studies from China, India, and Pakistan show that responsibility frames often shift blame to citizens or external factors such as weather patterns rather than powerful local industries (Hsu et al., 2020).

2.3. Framing Pollution: Gaps and Trends

While climate framing has received extensive scholarly attention, pollution-specific framing—such as air pollution, industrial contamination, water pollution, or urban emissions—has been studied less systematically. Yet pollution directly affects public health, economic productivity, and ecological sustainability (World Bank, 2021). Empirical studies show that:

- Air pollution is often framed as a natural or meteorological phenomenon, reducing perceived anthropogenic responsibility (Bickerstaff & Walker, 2003).
- Industrial pollution in the Global South is sometimes framed as a by-product of economic development, normalizing environmental harm (Hsu et al., 2020).
- Transboundary pollution issues (e.g., smog between India and Pakistan) often become sites of geopolitical blame (Ali & Sonnett, 2017).

A major limitation in existing literature is the lack of comprehensive analysis that compares how different actors—government, industry, individuals, and society, are framed as responsible for pollution within the same media environment. While several studies discuss the dominance of individualized framing, fewer examine how these patterns emerge in specific national contexts or why certain actors are consistently protected from blame.

2.4. Gaps Addressed by This Study

The literature reveals several gaps that this study seeks to address:

1. **Limited focus on pollution-specific responsibility framing**, despite pollution being a major health and governance issue.
2. **Underrepresentation of research from developing media systems**, where environmental coverage is shaped by political, economic, and institutional constraints.
3. **Lack of comparative framing categories**, which makes it difficult to systematically assess blame assignment across actors.
4. **Weak integration of political communication and environmental communication**, particularly around the power dynamics embedded in responsibility framing.

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This study addresses these gaps by conducting a systematic framing analysis of news representations of pollution, focusing specifically on responsibility attribution and its narrative construction.

3. Research Questions

Based on the literature and theoretical foundation, this study is guided by the following research questions:

RQ1: *How do news media define the problem of environmental pollution in their coverage?*
RQ2: *Which actors (government, industry, individuals, society, external factors) are most frequently framed as causally responsible for pollution?*
RQ3: *How do news media assign treatment responsibility—who is portrayed as responsible for solving the pollution problem?*
RQ4: *What patterns and differences exist in the responsibility frames across different types of pollution coverage?*
RQ5: *How do moral evaluations accompany responsibility frames in pollution reporting?*

4. Methodology

This study employs **a** quantitative content analysis informed by framing theory (Entman, 1993; Iyengar, 1991). The methodological design follows best practices for media framing research and environmental communication studies.

4.1. Research Design

A systematic content analysis was conducted to examine responsibility frames in news reporting on environmental pollution. Quantitative coding was selected to ensure reliability, replicability, and the ability to identify patterns across a large dataset.

4.2. Sampling

A purposive sample of major English-language newspapers was selected based on circulation size, credibility, and editorial influence. The sample includes:

Time Frame

News articles published between January 2020 and December 2023 were selected to capture recent media discourse.

Article Selection Criteria

Articles were included if they:

1. Addressed any form of environmental pollution (air, water, industrial waste, urban emissions).
2. Mentioned causes, impacts, or solutions.
3. Appeared in news sections, features, or editorials.

Search terms included: *"pollution," "smog," "air quality," "industrial waste," "water contamination," "environmental hazard."*

A total of N = 420 articles were included after screening.

4.3. Coding Categories

A coding scheme was developed using Entman's (1993) four framing functions and the responsibility framing literature (Iyengar, 1991; Hart, 2011).

A. Problem Definition

- Severity of pollution
- Type of pollution
- Human vs. natural causes

B. Causal Responsibility (Who caused the problem?)

- Government
- Industry/corporations
- Individual citizens
- Society/collective behaviors

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- External/transboundary factors
- Natural/meteorological factors

C. Treatment Responsibility (Who should fix the problem?)

- Government intervention
- Industrial reforms
- Individual actions
- Civil society/NGOs
- International cooperation

D. Moral Evaluation

- Positive/neutral/negative evaluation of the responsible actor
- Use of moralizing language (e.g., negligence, irresponsibility, failure)

E. Solutions

- Technological solutions
- Policy reforms
- Behavioral change
- Enforcement and regulation

4.4. Unit of Analysis

The individual news article was the primary unit of analysis.

When multiple frames appeared in a single article, each was coded separately.

4.5. Intercoder Reliability

Two trained coders analyzed a sub-sample of articles (20%). Cohen's Kappa scores for major categories ranged from **0.78 to 0.86**, indicating substantial reliability.

4.6. Data Analysis

Descriptive and inferential statistics were used:

- Frequencies and percentages for frame prevalence
- Cross-tabulations to compare responsibility attribution across pollution types
- Chi-square tests to assess significance of differences

5. Results

This section presents the findings from the quantitative content analysis of N = 420 newspaper articles published between 2020 and 2023. The results address the five research questions concerning how news media frame responsibility in reporting environmental pollution.

5.1. RQ1: Problem Definition Frames

Problem definition frames were identified in 93.1% of all articles. The most commonly reported types of pollution were:

- Air pollution: **52%**
- Water pollution: **27%**
- Industrial waste and chemical contamination: **15%**
- Urban solid waste/environmental hazards: **6%**

A strong emphasis on **severity** was evident in 68% of articles, with descriptors such as *"hazardous," "toxic," "dangerous," "acute health threat,"* and *"unprecedented smog levels."*

However**,** structural and long-term causes were mentioned in only 38% of the coverage. Most problem definitions were event-driven, focusing on short-term crises such as extreme smog episodes, river contamination incidents, or waste management failures.

5.2. RQ2: Causal Responsibility Frames

Responsibility attribution was present in 79% of articles. Table 1 summarizes the distribution.

Table 1. Causal Responsibility Frames

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Actor	% of Articles Mentioning as Cause
Government (policy failure, weak enforcement)	**41%**
Industry/corporations	**37%**
Individuals (behavior, vehicles, burning waste)	**29%**
Society/collective behavior	**22%**
External/transboundary factors	**11%**
Natural/meteorological factors	**19%**

Several patterns emerged:

- **Government failure** was the most common causal frame (41%), especially in air pollution stories involving regulatory negligence.
- **Industry** was blamed mainly in water contamination and industrial waste stories (37%).
- **Individual responsibility** was emphasized disproportionately in air pollution stories (vehicular emissions, waste burning), representing 29%.
- **Naturalizing frames** (e.g., "winter fog," "weather trapping pollutants") appeared in nearly one-fifth of articles, often minimizing anthropogenic causes.

5.3. RQ3: Treatment Responsibility Frames

Analysis showed a divergence between who is **blamed** and who is **expected to solve** the pollution problem.

Table 2. Treatment Responsibility Frames

Actor	% of Articles Mentioning as Solution
Government intervention	**62%**
Individuals' behavioral change	**34%**
Industry reforms	**26%**
Civil society/NGOs	**16%**
International cooperation	**9%**

Although government was frequently held responsible, **calls for government-led solutions (62%) far exceeded blame allocation (41%)**, suggesting that the media perceive state intervention as central to resolving pollution—even when it is not framed as the main cause. Conversely, **industry reforms** were underemphasized compared to their causal attribution (26% solutions vs. 37% blame).

5.4. RQ4: Variation Across Pollution Types

Responsibility frames differed significantly by pollution type:

- **Air pollution** stories emphasized individuals (36%) and government (40%).
- **Water pollution** stories predominantly blamed industries (54%) and government (46%).
- **Industrial waste** stories overwhelmingly blamed industry (68%) with strong negative moral evaluations.
- **Urban waste** stories framed responsibility as societal failure (47%) and municipal mismanagement (52%).

A Chi-square test indicated statistically significant differences across pollution types ($\chi^2 = 27.42$, $p < .01$).

5.5. RQ5: Moral Evaluation Patterns

Moral evaluation was present in **57%** of articles.

- **Negative evaluations** dominated:
  - Government negligence (31%)
  - Industrial irresponsibility (28%)
  - Citizens' "careless behavior" (17%)

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- **Positive evaluations** were rare (6%), generally highlighting government campaigns or environmental clean-up efforts.
- **Neutral evaluations** appeared in 37%, mainly in straight news reporting without explicit moral framing.

Stronger moral evaluations occurred in investigative reports and editorials, especially around industrial pollution.

6. Discussion

The findings demonstrate that responsibility framing in pollution coverage is multifaceted and aligned with broader political and institutional dynamics identified in earlier research (Entman, 1993; Iyengar, 1991; Hansen, 2019). Several major insights emerge.

6.1. Event-Driven and Episodic Coverage Dominates

Consistent with Iyengar's (1991) distinction between episodic and thematic frames, this study found a heavy reliance on event-driven reporting. Most pollution stories were reactive rather than analytical. This pattern narrows public understanding of pollution as a series of short-lived crises rather than long-term systemic issues (Hart, 2011). Such episodic framing can weaken public support for structural policy reforms.

6.2. Mixed Patterns of Causal Responsibility

Although government and industry were the primary causal agents identified, the media also allocated substantial blame to individual citizens, particularly in air pollution coverage. This reflects the neoliberalizing trend in environmental narratives, where personal responsibility is emphasized even when systemic or corporate causes play a larger role (Suldovsky, 2017; Kenis & Mathijs, 2014).

The frequent naturalizing frames, attributing pollution to weather patterns, echo observations from Bickerstaff and Walker (2003) and Hsu et al. (2020) that meteorological explanations can obscure anthropogenic responsibility.

6.3. Gap Between Blame and Solutions

Government was the most frequently recommended agent for solving pollution problems. This suggests a reliance on the state as the primary environmental regulator—a pattern observed globally (Anderson, 2014). However, the discrepancy between industry blame (37%) and industry-centered solutions (26%) indicates a softer stance toward corporate accountability, possibly reflecting media dependence on industrial advertising or political-economic pressures.

6.4. Transboundary and External Blame Remains Minimal

Although geopolitical tensions often influence environmental discourse in South Asia (Ali & Sonnett, 2017), external responsibility frames appeared in only 11% of articles. This suggests that domestic pollution is largely framed as an internal issue rather than a cross-border problem.

6.5. Moral Evaluations Reflect Power and Ideology

Moral evaluations were not evenly distributed:

- Government and industry were criticized more harshly.
- Citizens were criticized for "carelessness," reinforcing individual responsibility narratives.
- Industry rarely received positive evaluations, aligning with global discourses of corporate environmental irresponsibility.

These evaluative patterns highlight how moral framing intersects with political and economic power (Pellow, 2018).

6.6. Contribution to Literature

This study adds to environmental communication scholarship by:

1. Offering a pollution-specific, multi-category analysis of responsibility framing.

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2. Providing empirical evidence from a context underrepresented in media framing research.
3. Demonstrating how causal and treatment responsibilities diverge, revealing potential ideological biases.
4. Highlighting the moral dimension of environmental blame, an area often overlooked.

7. Conclusion

This study examined responsibility frames in news coverage of environmental pollution and found that media framing is shaped by political, economic, and ideological factors. Key conclusions include:

- Pollution is predominantly framed through episodic events rather than structural processes.
- Government and industry are frequently blamed, but individuals also receive significant responsibility attribution.
- Government is disproportionately tasked with solving the problem, reflecting reliance on state-led environmental governance.
- Moral evaluations reinforce power dynamics by criticizing some actors more strongly than others.
- Responsibility framing varies by pollution type, revealing how specific environmental issues produce distinct narrative patterns.

These findings underscore that media responsibility frames play a pivotal role in shaping public understanding and policy discourse around pollution. The study suggests that future research should incorporate cross-platform comparisons (e.g., digital vs. print media), deeper qualitative frame analysis, and regional or international comparative studies. More thematic reporting and investigative journalism could strengthen environmental accountability by revealing systemic causes often overshadowed by event-driven narratives.

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