FRAMING WATER SCARCITY IN SOUTH ASIA: A COMPARATIVE ANALYSIS OF PAKISTANI AND INDIAN MEDIA

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Abstract
Water scarcity poses a severe and escalating threat in South Asia, particularly in Pakistan and India, where climatic instability, rapid population growth, and political tensions intensify resource insecurity. This study investigates how mainstream media in the two countries frame water scarcity and how these framing practices shape public perceptions and responsibility attribution. Using qualitative content analysis of 300 media texts and 40 semi-structured interviews, the study compares episodic and thematic framing, responsibility narratives, emotional tone, and representation of affected communities. Results show that episodic framing dominates coverage, particularly in Pakistani media, promoting reactive crisis narratives and individual or external blame attribution. Indian media adopt thematic framing more frequently, emphasizing developmental reforms and governance challenges. Pakistani media engage more strongly in conflict and nationalism framing, while Indian narratives highlight modernization solutions. Both media systems marginalize voices of affected communities. Findings illustrate that framing strategies significantly influence public understanding, emotional response, and policy expectations. The study argues for more thematic, inclusive, and cooperative framing practices to support sustainable environmental governance and regional stability.

Keywords: Water scarcity; media framing; Pakistan; India; episodic framing; thematic framing; environmental communication; nationalism; hydropolitics; public perception

1. Introduction

Water scarcity has emerged as one of the most critical and contested challenges facing South Asia, a region heavily dependent on transboundary river systems, monsoon variability, and agricultural economies. Pakistan and India, both nuclear-armed neighbors sharing the Indus River Basin, are experiencing rapidly intensifying water stress driven by climate change, population growth, groundwater depletion, and political conflict. Despite the ecological severity of the crisis, public understanding of water scarcity in both countries is shaped largely by mediated narratives rather than scientific data or direct experience. As Goffman (1974) notes, individuals interpret complex problems through socially constructed frames that organize meaning and guide public perception. Thus, examining how media frame water scarcity in Pakistan and India is essential for understanding how citizens assign responsibility, interpret risks, and support policy actions.

South Asia's water challenges are deeply interconnected with socio-political history and geopolitical tensions. Pakistan and India have disputed water distribution since the Partition of

1947, culminating in the signing of the Indus Waters Treaty (IWT) in 1960. While considered one of the world's most durable water-sharing agreements, the treaty has repeatedly resurfaced in political discourse as relations between the two states deteriorate (Wescoat, 1991). Both governments routinely invoke water narratives as instruments of nationalism, securitization, and political mobilization. As Castells (2009) argues, communication is a central arena of power in which political actors shape public consciousness through narrative construction. In this context, media narratives surrounding water scarcity transcend environmental reporting and become deeply political acts.

Water scarcity is not experienced uniformly across South Asian societies. Rapid urbanization and industrial expansion have strained water infrastructure, while rural agricultural communities face crop failures, declining groundwater tables, and livelihood collapse (Khan & Hussain, 2018). Vulnerable groups—such as rural farmers, women responsible for household water collection, and low-income urban populations—bear the greatest burdens of scarcity. Yet mainstream media coverage often privileges political and bureaucratic voices over affected citizens, reinforcing what Herman and Chomsky (1988) describe as representational inequality shaped by power and access. Media framing therefore influences which experiences are made visible, whose suffering counts, and which policy solutions appear legitimate.

The role of framing in shaping environmental discourse is central to understanding media representation of water scarcity. Framing determines how an issue is defined, who is responsible, and what solutions are considered viable (Iyengar, 1991). Episodic framing focuses on specific events—drought emergencies, crop destruction, water protests—while thematic framing situates the problem within broader structural, political, and historical contexts. Lakoff (2002) argues that linguistic and metaphorical framing influences how audiences think about problems, shaping cognitive models of responsibility and urgency. In the case of water scarcity, episodic framing may lead publics to view the issue as unpredictable disaster or local mismanagement, whereas thematic framing encourages recognition of systemic failures such as climate vulnerability, governance incompetence, and infrastructural decay.

Research on environmental communication has shown that episodic framing tends to promote reactive attitudes and individual blame, while thematic framing fosters systemic understanding and support for long-term policy solutions (Iyengar, 1991). In South Asia, where water politics is intertwined with identity, nationalism, and regional competition, framing choices have significant socio-political implications. Pakistani and Indian media frequently deploy rhetorical strategies that reinforce nationalistic narratives, constructing water scarcity as an adversarial struggle linked to sovereignty and national security rather than an environmental and humanitarian crisis (Akhtar, 2021). Such securitization reinforces conflict framing and can deepen polarization between states.

Moreover, public response to environmental crises is shaped not only by cognitive understanding but by affective response. As Sunstein (2001) notes, risk perception is influenced by emotional processing and narrative framing rather than objective evidence. Media emphasize dramatic imagery and crisis language to capture public attention. However, crisis-centric framing can produce emotional fatigue, confusion, or resignation rather than constructive engagement. Meanwhile, thematic storytelling that explains systemic causes can empower public understanding and encourage collective action. Therefore, assessing how Pakistani and Indian media frame water scarcity is critical for identifying how narratives contribute to public mobilization, apathy, or fear.

Despite the growing severity of water scarcity in South Asia, comparative research on media framing of water issues in Pakistan and India remains limited. Existing studies tend to focus heavily on technical, hydrological, or policy-oriented analysis while neglecting the communicative dimensions of perception and meaning-making (Adeel & Piracha, 2020).

Research on Pakistan has emphasized governance challenges, declining water infrastructure, and agricultural vulnerability (Arif, 2018), while studies on India highlight over-exploitation of groundwater and the impact of urban and industrial expansion (Iyer, 2003). Yet little research examines how media discourse shapes collective understanding and political interaction around shared water resources.

Given the geopolitical volatility of the region, the discursive framing of water scarcity can influence diplomatic negotiations and national identity. Crisis framing can escalate antagonistic sentiments, while cooperative or thematic framing can foster regional problem-solving. Media narratives can therefore function either as contributors to peace-building or as accelerants of conflict. Castells (2009) argues that communication networks structure political struggle, making media central to the contestation of meaning in the information age. Examining how Pakistani and Indian media frame water scarcity provides insight into strategic storytelling, political symbolism, and the ideological management of environmental crises.

This study addresses this gap by analyzing how water scarcity is framed in mainstream media from Pakistan and India and how framing strategies shape public perception, blame attribution, and political identity. It investigates dominant narrative patterns, emotional tones, and representation of actors across print, television, and digital media. By comparing framing approaches between the two countries, the study explores how geopolitical conflict influences environmental discourse and whether media promote cooperation, competition, or symbolic retaliation.

Understanding framing differences is crucial because narratives guide public priorities and policy demands. If water scarcity is framed as a national security threat, public response may prioritize geopolitical confrontation rather than sustainable management. If framed as climatic or governance failure, public response may emphasize reform and accountability. If framed as humanitarian injustice, public action may target social equity. Therefore, framing influences not only public comprehension but political trajectory.

The significance of this comparative study lies in its contribution to environmental communication scholarship, South Asian media studies, and hydropolitical research. By integrating framing theory, political economy of communication, and environmental justice perspectives, the study underscores how meaning is produced, contested, and circulated through media narratives. It highlights the symbolic power of media to shape environmental realities and influence pathways toward resolution or conflict.

Ultimately, water scarcity in South Asia is not only a material crisis but a communicative struggle. How the problem is framed determines whether societies perceive it as solvable, ignorable, or weaponizable. By analyzing media framing in Pakistan and India, this research seeks to illuminate how narrative construction shapes public understanding and political possibilities in confronting one of the region's most urgent challenges.

2. Literature Review

Water scarcity has become one of the most urgent and politically charged environmental issues in South Asia, a region heavily dependent on shared water systems and highly vulnerable to climate instability. The issue of water scarcity intersects with governance, identity, national security, and media discourse, making it a complex challenge both materially and symbolically. This literature review synthesizes scholarship relevant to media framing of water scarcity in Pakistan and India across six thematic domains:

(1) water scarcity in South Asia and climate vulnerability,
(2) media and environmental communication,
(3) episodic vs. thematic framing,
(4) political economy and hydropolitics in South Asia,

(5) nationalism, identity, and conflict framing in Pakistani and Indian media,
(6) representation, public perception, and environmental justice.

2.1 Water Scarcity and Climate Vulnerability in South Asia

South Asia's water security is threatened by a convergence of climatic, demographic, and governance pressures. The region relies heavily on river systems fed by the Himalayan glaciers, which have shown accelerated melting due to climate change, directly affecting seasonal and long-term water flows (Adeel & Piracha, 2020). Population growth, industrial expansion, and agricultural dependence have intensified pressures on water infrastructure. Pakistan and India together support over 1.6 billion people yet face rapidly declining per-capita water availability (Khan & Hussain, 2018). In Pakistan, per-capita water availability has fallen from 5,260 cubic meters in 1951 to below 1,000 cubic meters in 2020, placing the country in the category of absolute scarcity (Arif, 2018). India faces similarly severe depletion of groundwater resources, with reports indicating that several major cities risk complete aquifer exhaustion (Iyer, 2003). Despite the severity of the issue, water scarcity is not experienced uniformly. Rural agricultural communities face crop failures and livelihood collapse, while urban centers confront municipal shortages, tanker dependency, and inequitable distribution. Vulnerable communities—including rural farmers, women, and low-income households—bear the brunt of scarcity yet often remain absent from national discourse. The environmental justice literature emphasizes that marginalized groups experience disproportionate environmental burdens, but remain underrepresented in public communication (Khan, 2017). This imbalance reflects broader structural inequities embedded in environmental governance.

2.2 Media and Environmental Communication

Media representations play a crucial role in shaping public understanding of environmental issues. Environmental communication research emphasizes that environmental crises are mediated phenomena, publics seldom witness ecological degradation directly, and instead rely on symbolic representations constructed through journalistic and political discourse (Goffman, 1974). Castells (2009) argues that communication power shapes public perception by controlling narrative visibility and interpretive framing. The media select which environmental issues gain attention and how they are interpreted, influencing risk perception and policy response.

The media rarely present environmental problems neutrally. They interpret and organize information using narrative structures that reflect institutional priorities, audience appeal, and socio-political context. Sunstein (2001) notes that risk communication often relies on emotional and dramatic storytelling to attract audience engagement. As a result, environmentally slow-onset crises like groundwater depletion may receive less coverage than dramatic climate disasters such as floods or drought emergencies. Environmental issues gain attention primarily when they intersect with news values such as conflict, drama, or human suffering.

Research highlights the paradox that environmental crises that unfold gradually, like water scarcity, may generate less sustained public attention unless framed dramatically. This creates communication challenges for environmental policy, since meaningful reform requires long-term planning rather than reactive response cycles (Adnan et al., 2019; Aslam et al., 2020; Aslam & Ahmad, 2019a, 2019b; Riaz et al., 2021a). Bhatti and Qureshi (2020) found that Pakistani media prioritize sensational and conflict-driven environmental reporting rather than long-term educational content. Similar research in India shows that environmental coverage often focuses on catastrophe imagery rather than structural analysis (Raza & Bukhari, 2021). These findings emphasize the importance of framing in shaping public interpretation.

2.3 Episodic vs. Thematic Framing in Environmental Communication

Theoretical distinctions between episodic and thematic framing offer essential insight into media treatment of water scarcity. Iyengar (1991) defines episodic framing as coverage that

focuses on specific events, incidents, and immediate problems, while thematic framing situates issues in long-term structural, political, or systemic contexts. Episodic frames present problems as isolated occurrences, leading audiences to attribute responsibility to individuals or local actors. In contrast, thematic framing promotes systemic understanding by explaining historical background, structural causes, and institutional responsibility.

Lakoff (2002) argues that framing influences thought by activating cognitive structures that guide moral judgment. When water scarcity is framed episodically, coverage of a drought emergency or water riots, audiences may view the crisis as sudden and unpredictable. This may shift blame toward citizens, communities, or local officials rather than systemic failures such as infrastructure deterioration, climate vulnerability, or governance inefficiency (Ahmad et al., 2021; Aslam et al., 2024; Faizullah et al., 2021; Hussain et al., 2021; Riaz et al., 2021b). Conversely, thematic framing encourages recognition of the interconnectedness of environmental policy, climate change, agricultural strategy, and resource management.

Studies across environmental crises reveal that episodic framing generates high emotional response and short-term mobilization but may reduce deeper comprehension. Thematic framing can foster public support for long-term reforms but may receive less media visibility due to lower dramatic value. Research also indicates that media systems often favor episodic framing because it aligns with news values emphasizing conflict, spectacle, and immediacy (Braun & Clarke, 2006). These insights underscore the importance of examining how episodic and thematic frames shape public understanding of water scarcity in South Asia.

2.4 Political Economy, Hydropolitics, and Media Influence in South Asia

Environmental communication cannot be separated from power relations. Herman and Chomsky (1988) argue that media systems reflect political and elite interests, shaping discourse to protect institutional power. In South Asia, water scarcity is deeply entangled with national ideology, territorial sovereignty, and regional rivalry. The Indus Waters Treaty (IWT), signed in 1960, has historically governed water sharing between Pakistan and India, but political tensions periodically reignite disputes (Wescoat, 1991). As diplomatic relations worsen, water narratives become politicized and securitized.

Research shows that Indian media sometimes frame Pakistan as intentionally mismanaging water or weaponizing accusations to deflect internal governance failures (Akhtar, 2021). Conversely, Pakistani media may frame India as an aggressor withholding water to undermine Pakistan's agriculture and economy (Khalid & Beg, 2019). Such conflict framing reinforces nationalistic identity and justifies political aggression. Castells (2009) describes such narratives as "communication weapons" mobilized to control public consciousness in geopolitical struggle.

The political economy of water infrastructure within both states also influences media framing. Economic interests tied to hydropower projects, irrigation systems, and industrial extraction shape how narratives are constructed. News outlets dependent on corporate advertising or political patronage may avoid criticizing institutional actors. Thus, the discursive construction of water scarcity is shaped not only by ecology but by political opportunity structures.

2.5 Nationalism, Identity, and Conflict Framing in Pakistani and Indian Media

Water scarcity is frequently framed within nationalist discourse in both Pakistan and India. Nationalism serves as a powerful rhetorical tool that transforms environmental problems into questions of national identity, sovereignty, and security. Billig (1995) notes that banal nationalism reinforces national identity by embedding political messaging within everyday discourse. Water, as a symbol of survival and sovereignty, becomes an emotionally charged component of national rhetoric.

Media framing in both countries often deploys nationalist metaphors such as "water war," "survival struggle," and "enemy conspiracy." Combined with crisis language, such narratives

frame water scarcity as external aggression rather than shared environmental risk. This supports Sunstein's (2001) argument that risk communication can amplify conflict and collective fear. Comparative studies indicate that Indian media often emphasize development, modernization, and technological progress narratives surrounding water resource management, while Pakistani media frequently highlight vulnerability, injustice, and external threat narratives (Malik & Ahmad, 2020). The result is distinct national framing cultures that shape public reasoning and identity.

2.6 Representation, Public Perception, and Environmental Justice

Environmental communication research emphasizes that the visibility of affected populations influences public empathy and policy pressure. Yet environmental justice scholars argue that marginalized groups are routinely excluded from mainstream discourse (Khan, 2017). Research indicates that Pakistani and Indian media prioritize official perspectives, expert voices, and political leaders over those directly suffering scarcity (Arif, 2018). This representational marginalization weakens the ethical urgency of water scarcity by detaching it from lived experience.

When human-interest narratives are included, they tend to appear within episodic crisis reporting rather than thematic structural discussion. As a result, empathy may be invoked without systemic accountability. Thus, representation plays a crucial role in shaping public support for reform.

3. Research Questions & Hypotheses

RQ1: How do Pakistani and Indian media frame water scarcity through episodic and thematic narratives?

RQ2: What similarities and differences exist in framing strategies between the two national contexts?

RQ3: How do framing choices influence public perception of responsibility, urgency, and national identity?

RQ4: Which actors and affected communities are represented or excluded in mainstream coverage?

Hypotheses

H1: Pakistani and Indian media predominantly use episodic framing when covering water scarcity.

H2: Pakistani media are more likely to frame water scarcity through external conflict and national threat, while Indian media emphasize development and modernization.

H3: Thematic framing is more likely to attribute responsibility to institutional failures and policy structures.

H4: Marginalized community voices are significantly underrepresented in both media systems.

5. Methodology

5.1 Research Design

This study employed a qualitative comparative research design integrating content analysis and semi-structured interviews to examine how water scarcity is framed in mainstream media in Pakistan and India. A qualitative approach was selected to capture the symbolic construction of water scarcity and the complex interpretive processes involved in media meaning-making. Creswell (2013) explains that qualitative research is well suited for understanding how individuals interpret social phenomena and construct shared meaning through discourse. Given that framing is a narrative and interpretive process, qualitative analysis provides essential tools for examining how media structure environmental narratives.

The comparative design allowed examination of similarities and differences in framing patterns across the two national contexts. Comparative analysis is useful for understanding how socio-political environments shape environmental narratives, particularly in politically contentious regions.

5.2 Sample and Data Sources

A purposive sampling strategy was used to select 300 media texts published between January 2020 and December 2022 across major Pakistani and Indian mainstream media outlets.

Country	Media Outlets	Sample Count
Pakistan	*Dawn, The News, Express Tribune, ARY, Geo, Samaa*	150
India	*Times of India, The Hindu, Hindustan Times, NDTV, Republic TV, India Today*	150

Media texts included news articles, editorials, opinion columns, and television news transcripts. Sampling ensured thematic diversity by selecting texts representing crisis moments (drought seasons, water riots, crop failures) as well as structural discussions (climate change, Indus Waters Treaty disputes, groundwater policy reforms).

Audience Interviews

To analyze public interpretation, 40 semi-structured interviews were conducted with participants from both countries (20 per country). Participants included:

- Urban residents affected by municipal shortages (10)
- Rural farmers and agricultural workers (10)
- Journalists, researchers, and policy analysts (10)
- University students and professionals (10)

Interviews lasted 35–60 minutes and were conducted in Urdu, Hindi, or English depending on participant preference.

Participation was voluntary and anonymity was protected using pseudonyms.

5.3 Data Collection

Media content was collected through keyword searching of online archives using terms such as *water crisis, water scarcity, drought, Indus River Basin, groundwater shortage, tankers, irrigation failure,* and *water security*. Interview participants were identified through snowball sampling and open calls for volunteers.

Interview questions focused on:

- Perceived severity of water scarcity
- Media influence on understanding and expectations
- Blame attribution and responsibility
- Emotional response to coverage
- Perceived differences in media reporting

Conversations were audio-recorded and transcribed.

5.4 Data Analysis

The study used thematic analysis following Braun and Clarke's (2006) methodology. The coding process consisted of:

1. Familiarization with media texts and transcripts
2. Generating initial codes
3. Identifying categories of episodic and thematic framing
4. Developing themes based on narrative patterns
5. Comparative analysis between Pakistani and Indian samples
6. Integration of interview insights with media findings

Media texts were coded for:

- Type of framing (episodic vs. thematic)
- Tone and emotional language
- Responsibility framing (individual, governmental, external actor)
- National identity and security rhetoric
- Representation of affected groups

- Solution recommendations

Interviews were analyzed for alignment or divergence between public perceptions and media representations.

To ensure reliability, two independent coders reviewed 30% of the sample and resolved discrepancies through discussion.

5.5 Ethical Considerations

Ethical standards were followed throughout the research. Participants were provided consent forms, confidentiality was maintained, and identifying data were removed from transcripts. Only publicly available media content was analyzed.

6. Results

The thematic analysis revealed distinct patterns in how Pakistani and Indian media frame water scarcity. Results indicate major differences in the prevalence of episodic and thematic framing and demonstrate contrasting national narratives relating to conflict, responsibility, and identity construction.

6.1 Prevalence of Episodic and Thematic Framing

Episodic framing was significantly more common across both national contexts but was more dominant in Pakistani media coverage.

Framing Distribution

Type of Framing	Pakistan	India
Episodic framing	68%	57%
Thematic framing	32%	43%

Episodic stories in both countries focused heavily on immediate crises such as drought emergencies, crop destruction, water riots, urban shortages, and tanker conflicts.

Examples of episodic headlines included:

- *"Karachi on edge as water tankers vanish"* (Pakistan)
- *"Chennai runs dry: Residents fight for every drop"* (India)

In contrast, thematic coverage addressed policy failures, climate change, hydropower projects, agricultural inefficiency, and long-term structural reform options.

6.2 Responsibility Framing

Responsibility attribution varied between the two countries.

Country	Dominant Blame Frame
Pakistan	External actors (India), government mismanagement
India	State corruption, local administration, climate variation

Pakistani media frequently positioned India as an adversary withholding water or violating the Indus Waters Treaty. Indian media emphasized internal governance difficulties, population pressure, and climate unpredictability.

Interview participants reflected these patterns:

"India controls our rivers; they release water when they want and choke us when they want." – Pakistani respondent

"Our own system is broken. What do neighbors have to do with taps running dry?" – Indian respondent

6.3 Nationalism and Conflict Framing

Nationalistic rhetoric was significantly more prevalent in Pakistani media, where water scarcity was frequently framed as a national security issue or strategic threat. This supports research suggesting that crisis narratives can be weaponized to mobilize national identity.

Indian media used development-centric framing more often, presenting water scarcity as a challenge requiring modernization, technology, and hydropower expansion.

Conflict metaphors such as *"water war"*, *"survival battle"*, and *"enemy strategy"* were common in Pakistani reports. Indian coverage more frequently used terms such as *"water management reform"* and *"infrastructure modernization."*

6.4 Representation of Affected Voices

Marginalized communities were significantly underrepresented in both countries.

Actor Represented	Pakistan	India
Government officials	52%	48%
Experts & scientists	21%	25%
Affected communities	14%	18%
Activists / NGOs	13%	9%

Public perspectives were typically included only during extreme crisis episodes rather than long-term debates. Voices of agricultural laborers, rural women, and informal settlements appeared mainly in episodic emotional narratives.

Interview feedback emphasized this concern:

"The people who suffer don't have the power to speak. We only see leaders talking." – Interview respondent

6.5 Emotional Tone

Emotional expression differed between the two national media systems.

Dominant Tone	Pakistan	India
Fear & urgency	47%	29%
Anger & blame	31%	28%
Hope & reform optimism	22%	43%

Pakistani narratives emphasized crisis and external threat. Indian narratives leaned toward reform optimism and modernization framing.

6.6 Comparative Thematic Focus

Thematic Focus	Pakistan	India
Hydropolitics & national security	High	Moderate
Governance & corruption	Moderate	High
Climate change	Moderate	High
Agriculture & groundwater	Low	Moderate
Urbanization & infrastructure	Low	High

6.7 Impact of Framing on Public Perception

Interviews demonstrated that framing strongly influenced perceptions of responsibility and urgency.

Participants exposed to episodic crisis framing:
- Reported higher confusion and fear
- Blamed individuals, public misuse, or political enemies
- Supported short-term actions such as tanker distribution

Participants exposed to thematic framing:
- Identified government accountability
- Understood climate and structural causes
- Supported policy reform, regulation, and long-term planning

6.8 Summary of Key Findings

The results can be summarized as follows:
- Pakistani and Indian media rely heavily on episodic framing but thematic framing is more prevalent in Indian media.
- Pakistani reports more frequently employ nationalist and conflict framing.
- Indian reports more often emphasize developmental and modernization narratives.

- Representation of marginalized communities is limited in both media systems.
- Emotional framing differs, influencing public expectations and interpretations.

7. Discussion

This study examined how Pakistani and Indian media frame water scarcity and how these framing choices shape public perceptions, responsibility attribution, and national identity. The findings demonstrate clear differences in framing strategies between the two countries, revealing the influence of political context, national priorities, and institutional media cultures on environmental communication. While both countries rely heavily on episodic framing, Pakistan demonstrates a significantly stronger orientation toward conflict, nationalism, and external blame, whereas Indian media tend to adopt modernization and development-driven thematic framing. These differences carry critical implications for public understanding and environmental governance.

The dominance of episodic framing in both national media systems reflects broader global patterns in environmental reporting, where slow-onset crises such as water scarcity receive attention primarily when they manifest in dramatic, newsworthy events. Episodic framing focuses on the human suffering, urgency, and spectacle of crisis and often portrays water scarcity as a sudden disruption rather than a predictable outcome of governance failure and environmental degradation. This aligns with Iyengar's (1991) argument that episodic framing encourages audiences to focus on individual or event-specific causes rather than structural and institutional dimensions. In the context of Pakistan and India, episodic stories frequently centered on water riots, crop destruction, drought emergencies, and municipal breakdowns. As a result, public discourse becomes reactive, emotional, and short-term oriented.

Thematic framing, by contrast, offers deeper contextualization, linking water scarcity to broader structural processes such as climate change, agricultural inefficiency, population growth, urbanization, and flawed governance. Thematic reporting in both countries (although more prevalent in India) frames water scarcity as a chronic condition that requires systemic reform and long-term policy intervention. Participants exposed to thematic content demonstrated stronger awareness of underlying drivers and were more likely to express support for institutional accountability and policy reforms. These findings support the view that thematic framing enhances cognitive understanding and encourages rational engagement rather than emotional panic.

The results also show that framing influences responsibility attribution in distinct ways. Pakistani media frequently frame water scarcity as a geopolitical conflict and external threat, particularly invoking the Indus Waters Treaty and accusations of deliberate aggression. This symbolic and nationalistic framing reinforces Billig's (1995) concept of banal nationalism, which embeds national identity within everyday storytelling. Conflict framing transforms environmental crises into adversarial narratives, mobilizing emotional responses such as anger, fear, and patriotism. In such narratives, India becomes the central actor responsible for scarcity, deflecting attention from internal governance failures. Interview participants from Pakistan often echoed this externalization of responsibility, suggesting that media narratives strongly shape public reasoning.

Indian media, on the other hand, tended to emphasize governance, development, modernization, and infrastructural reform. Rather than attributing blame externally, Indian narratives framed scarcity as a consequence of local administrative inefficiency, population expansion, and climatic variability. This aligns with Castells' (2009) argument that political communication strategies reflect dominant interests and national priorities. India's modernization discourse positions technological expansion—such as hydropower development and dam construction—as solutions, while Pakistan's security-oriented framing positions water scarcity within an existential survival narrative.

Another major finding concerns the representation of affected communities. Both Pakistani and Indian media heavily prioritize official voices—politicians, bureaucrats, experts, and institutional leaders—leaving marginalized populations and water-dependent agricultural workers largely unheard. This reflects Herman and Chomsky's (1988) critique that media privilege elite perspectives due to structural power relations and institutional constraints. The absence of grassroots voices perpetuates environmental injustice by removing human experience from structural debate. Instead, the voices of the most affected communities appear primarily in episodic crisis reporting, functioning as symbolic markers of victimhood rather than participants in decision-making discourse.

The emotional tone of coverage further differentiates the two countries. Pakistani framing relies strongly on fear and national threat narratives, reinforcing urgency and mobilization but also contributing to emotional fatigue. Interview participants from Pakistan expressed feelings of confusion, helplessness, and mistrust. Such emotional overload may generate attention but ultimately undermine sustained public engagement. Conversely, Indian coverage was more likely to integrate hope, optimism, and reform-oriented messaging, which encourages constructive engagement.

The results validate the theoretical claim that framing is a central mechanism through which media construct social reality. Goffman's (1974) framing model emphasizes that frames shape what is perceived as relevant and meaningful. Lakoff (2002) argues that language itself structures cognition and moral reasoning. In the context of hydropolitics, media framing not only explains environmental problems but actively constructs the political meaning of scarcity, either as a humanitarian issue, a governance challenge, or an act of national aggression.

The findings highlight significant communication implications. Since public understanding of water scarcity is mediated rather than directly experiential, media have substantial power to shape the direction of public debate. Episodic framing strengthens crisis narratives but may hinder long-term sustainability planning, while thematic framing can foster systemic solutions but may lack emotional traction. Therefore, a balanced communication strategy is crucial.

Furthermore, the comparative approach reveals that geopolitical tensions influence environmental framing more strongly in Pakistan than in India. Conflict-based narrative construction risks escalating diplomatic tensions, reinforcing stereotypes, and narrowing possibilities for regional cooperation. Since water resources are physically shared across borders, cooperative solutions are critical. Framing decisions may determine whether publics view water scarcity as a shared challenge or a battlefield for competition.

Overall, the study demonstrates that communication is not peripheral to environmental governance—it is foundational. Environmental problems become public problems only when represented through narrative and discourse. Therefore, improving environmental outcomes in South Asia requires strengthening thematic and justice-oriented framing, expanding representation of marginalized voices, and reducing nationalistic polarization.

8. Conclusion

This study explored how Pakistani and Indian media frame water scarcity and how different framing strategies influence public perception and political meaning. The findings demonstrate that episodic framing dominates both contexts, constructing water scarcity primarily as a crisis event characterized by emotional intensity and reactive urgency. While episodic framing may capture public attention, its prevalence risks oversimplifying complex structural processes and diverting focus from institutional responsibility and long-term sustainability.

Thematic framing, though less common—especially in Pakistan—provides deeper insight into structural drivers such as climate change, population pressure, agricultural practices, and governance failures. The study finds that Indian media employ thematic framing more frequently than Pakistani media, reflecting differences in national discourse culture. The results also show that responsibility attribution differs substantially between countries: Pakistani

media often externalize blame toward India and employ conflict-driven nationalistic rhetoric, while Indian media frame scarcity within modernization and development discourses.

Both countries exhibit representational inequality, with marginalized populations receiving minimal media attention except in crisis coverage. The exclusion of affected voices limits public understanding of environmental injustice and weakens policy pressure. Emotional tone analysis demonstrates that Pakistani narratives rely more heavily on fear and blame, while Indian narratives integrate optimism and solution-oriented messaging.

The findings highlight the need for more responsible media framing of water scarcity. For environmental communication to support public understanding and collective action, media should prioritize thematic framing, incorporate diverse perspectives, and contextualize crisis within structural reform. For governments, recognizing the communicative dimension of environmental governance is essential, as public perceptions shaped by framing influence policy legitimacy and resource allocation.

Given the transboundary nature of water systems, cooperative narratives are essential for sustaining regional stability. If media continue to frame scarcity through adversarial conflict and nationalism, opportunities for diplomatic negotiation and shared environmental management may weaken. Conversely, if thematic and justice-oriented framing becomes more prevalent, publics may support systemic reform rather than symbolic confrontation.

Future research could expand beyond mainstream media to include analysis of social media discourse, political speeches, and public protest movements. Longitudinal and mixed-method analysis would also deepen understanding of evolving narratives. Ultimately, whether South Asia experiences sustainable adaptation or deepening crisis will depend not only on hydrological systems but on communicative choices.

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