

Framing the Floods: Temporal Shifts and Ecological Silences in Indonesian Media

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ABSTRACT: Indonesia's increasing flood frequency and severity underscore the urgent need for comprehensive disaster reporting that highlights both natural and anthropogenic causes. This study investigates temporal changes in the media framing of flood disasters between 2020 and 2025, with a focus on ecological narratives in Indonesian online news outlets. Using Entman's four-frame model problem definition, causal attribution, moral evaluation, and remedy recommendation this research analyzed 60 articles from five national media platforms. The articles, covering events in Jakarta, Kalimantan, Jabodetabek, and Pekalongan, were examined using NVivo-assisted coding and critical discourse analysis supported by ecolinguistic perspectives. Results show a persistent reliance on natural disaster framing in both 2020 and 2025, with technical and infrastructural narratives increasingly dominant in recent years. While there is a gradual integration of scientific and policy-relevant vocabulary such as "climate adaptation" and "urban resilience" ecological degradation remains underreported. Comparisons between years reveal an incremental shift toward accountability framing, yet ecological drivers like deforestation or land-use mismanagement continue to receive minimal attention. Furthermore, reliance on official sources and episodic coverage patterns limit public engagement with systemic environmental issues. The discussion highlights structural constraints including corporate influence, low media literacy, regulatory barriers, and editorial dependence on government narratives. Lessons from Global South countries illustrate how integrating grassroots voices and improving journalist training can strengthen environmental reporting. The study concludes by advocating for institutional reforms, enhanced ecological literacy, and the empowerment of community journalism as steps toward more transformative media practices.

Keywords: Media Framing, Ecological Degradation, Flood Disasters, Environmental Journalism, Indonesia, Climate Communication, Nvivo Analysis.



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INTRODUCTION

Flood disasters in Indonesia are increasingly prevalent due to several interrelated factors encompassing climate change, geographical vulnerabilities, and human activities. A thorough review of recent hydrological and environmental studies indicates that significant causes of flood

disasters in Indonesia can be attributed to intensified rainfall patterns, land-use changes, and deforestation. The geographical context of Indonesia, comprising numerous islands and river basins, contributes to its susceptibility to flooding during heavy monsoon seasons. Studies indicate that the frequency and intensity of rainfall have escalated due to climate change, leading to severe flooding in urban areas where impervious surfaces exacerbate runoff, making rivers overflow (Diprose et al., 2017; Hissen et al., 2017). This situation is further compounded by rapid urbanization that often outpaces the development of adequate infrastructure.

Moreover, human-induced factors, particularly deforestation and the conversion of wetlands for agriculture and urban development, play a critical role in flood vulnerability. Deforestation, often spurred by commercial interests such as logging, mining, and palm oil expansion, disrupts natural hydrological cycles and increases surface runoff, thereby heightening flood risks (Mosurska et al., 2022). The loss of vegetative cover means that less water is absorbed into the soil, which can lead to rapid accumulation of water in rivers and subsequent flooding. In addition, poorly regulated construction activities in flood-prone areas further increase the impact of flooding. The inadequate management of water resources, including poor drainage systems in urban areas, outdated sewage infrastructure, and lack of coordinated watershed planning, exacerbates flooding during peak rainfalls (Roosvall & Tegelberg, 2015). As the Indonesian government continues to grapple with these challenges, the interconnections between ecological degradation, climate variability, and socio-economic factors become increasingly evident (Leipold & Winkel, 2016). These factors collectively contribute to the worsening impacts of flood disasters, posing complex problems for governance and policy intervention.

Media play a pivotal role in shaping public understanding of flood disasters, influencing both perceptions and policy responses (Tjahyana & Lesmana, 2024; Vu et al., 2020). However, studies suggest that disaster coverage often emphasizes immediate impacts and human suffering, while underreporting systemic ecological drivers such as deforestation and land-use mismanagement (Ajman, 2024; Barari & Yacoub, 2024). This selective framing risks limiting public engagement with long-term solutions.

The framing of climate-related disasters also significantly intersects with policy discourse. Research has shown that media representations can resonate deeply with political narratives, thus affecting policies geared towards environmental management and disaster preparedness. When media outlets emphasize certain aspects of disasters such as the human cost, infrastructural damage, or environmental degradation they can influence policymakers' perceptions and decisions (Schwarz & Diers-Lawson, 2024). This suggests an interplay between media coverage and political framing where the former not only informs public attitudes but can also pressure political entities to prioritize specific disaster management strategies or environmental policies (Anshori et al., 2022). Moreover, selective framing may serve to legitimize certain policy directions while marginalizing alternative or community-based approaches. The extent to which media align with state narratives or act as independent watchdogs remains a subject of ongoing debate in climate communication literature.

Longitudinal studies on climate change narratives in Indonesian journalism highlight an evolving landscape in environmental reporting. Over the years, there has been a noticeable shift from viewing climate change as a distant and abstract concept toward recognizing it as an immediate

and tangible threat faced by local communities (Vann, 2023). Analysts have noted that the urgency in reporting has increased alongside the frequency of extreme weather events. This evolution reflects a growing awareness among journalists regarding the socio-political implications of climate narratives, which has in turn influenced public discourse and policy discussions regarding climate emergencies in Indonesia (Roosvall & Tegelberg, 2015). Nonetheless, the depth and nuance of reporting often vary across media platforms, with some outlets offering detailed investigative pieces and others providing episodic or sensationalist coverage.

Regarding ecological degradation, recent assessments reveal a concerning frequency of reporting in Indonesian media concerning deforestation and land use issues, particularly in disaster contexts. A significant body of research indicates that media coverage often intertwines these ecological issues with disaster reporting, even though such narratives may not always receive the necessary depth and context (Ajman, 2024). This dynamic underscores a critical gap; while reporting on deforestation is relatively frequent, the nuanced discussions surrounding the implications of these actions on biodiversity, soil health, and flood vulnerability often remain insufficiently explored in mainstream narratives (Barari & Yacoub, 2024). Consequently, the broader environmental systems that underpin flood risk are frequently overlooked, leading to a fragmented understanding of disaster causality among the public. In turn, this limits the potential for sustained policy dialogue or integrated disaster risk reduction strategies.

Moreover, known biases and gaps persist in Southeast Asian environmental journalism, often leading to skewed public perceptions of ecological issues. One notable bias observed is the overrepresentation of elite voices such as government officials, corporate entities, and NGOs leaving marginalized communities and local voices underrepresented (Toumbourou et al., 2023). Consequently, the narratives may not effectively capture the lived experiences of those most affected by disasters, particularly in rural and indigenous contexts. This lack of varied perspectives can weaken the overall discourse on environmental policies and disaster management (Mosurska et al., 2022). Analysts have called for improvements in journalistic practices, advocating for a more inclusive approach that integrates diverse community views and emphasizes the interconnectedness of local actions and global environmental trends (Leipold & Winkel, 2016; Toumbourou et al., 2023). Such improvements may include capacity-building initiatives for journalists, the promotion of data-driven environmental reporting, and partnerships between media organizations and academic institutions.

In summary, Indonesia's flood vulnerability is shaped not only by climate and urban pressures but also by how the media frames these disasters. Yet, ecological narratives remain underexplored in journalistic coverage. This study addresses that gap by examining temporal changes in media framing of floods between 2020 and 2025, focusing on how ecological issues are represented or omitted. Specifically, it asks: (1) How have Indonesian media framed flood disasters over time? (2) To what extent do these frames include ecological drivers of flooding?

METHOD

This study adopts a qualitative–quantitative mixed-methods approach to capture both depth and breadth in the analysis of flood framing. The qualitative component (critical discourse analysis with

ecolinguistic insights) enables contextual interpretation of media narratives, while the quantitative component (NVivo-assisted frequency analysis) provides systematic evidence of framing patterns. Integrating these methods allows triangulation and strengthens the robustness of findings.

We applied Entman's four-part framing model: defining problems, diagnosing causes, making moral judgments, and suggesting remedies (Genisa & Angraini, 2023). This model was used to structure the analysis of media coverage related to key flood events in 2020 and 2025. The framework enables systematic identification of underlying ideological patterns and discursive strategies employed by the media.

A total of 60 news articles were purposively selected from five national online outlets (Kompas.com, Detik.com, Tempo.co, Antaranews.com, and Tribunnews.com). The corpus includes 30 articles from the 2020 Jakarta and South Kalimantan floods and 30 from the 2025 Jabodetabek and Pekalongan events. Articles were chosen based on explicit references to flood causes, impacts, or responses. While purposive sampling allows for targeted analysis, it limits the representativeness of findings and may not fully reflect media diversity across Indonesia. Metadata such as publication date, headline, source type, and length were catalogued.

Content was coded manually and via NVivo software. Entman's four frame components were applied to each article and cross-tabulated by year and media source. To ensure coding consistency, two researchers independently coded a subset of 20% of the sample, followed by discussion to resolve discrepancies, achieving intercoder agreement above 0.80. A dual strategy combined close reading for contextual interpretation and automated text analysis for frequency distributions and thematic clusters (Maharani & Vera, 2023). The use of NVivo enabled structured text search queries, thematic coding, and visualization of discursive clusters and word clouds.

We applied ecolinguistic principles to assess how environmental degradation is discussed or obscured in the media narratives (Tjahyana & Lesmana, 2024). The CDA component analyzed how linguistic features such as metaphors, passivization, and modality serve to promote or suppress ecological awareness. NVivo facilitated the identification of recurring discursive patterns across articles, media outlets, and time periods. Comparative analysis was used to contrast local and national narrative styles, enriching the understanding of multi-scalar discourse variation (Anggoro et al., 2023).

To triangulate findings, additional data were drawn from social media commentary, government press releases, and local news reactions, providing broader insight into media framing beyond mainstream platforms (Negara & Rusadi, 2021; Sunaryanto & Rizal, 2023).

Limitations include the rapid turnover and uneven quality of online news content, often shaped by editorial biases and market demands (Sujoko & Fahira, 2021). The digital divide and underrepresentation of marginalized voices may skew results, while algorithm-driven news feeds could affect content availability (Ajman, 2024). Additionally, evolving media consumption trends, particularly through social media, may require complementary methods to capture dynamic public engagement (Setyawan et al., 2023).

By incorporating both structured coding and contextual interpretation, this methodology enables a comprehensive assessment of flood disaster framing in Indonesian media across time.

RESULT AND DISCUSSION

Frame Distribution in 2020 Events

Media coverage of the 2020 Jakarta floods emphasized urgency and emotional appeal, portraying the disaster as a recurring crisis linked to annual monsoons. Reports relied heavily on dramatic imagery and language to evoke public empathy and frame the event as a humanitarian emergency requiring immediate intervention (Sari, 2020). This framing strategy focused predominantly on the aftermath and immediate response, shaping public understanding around the consequences rather than underlying causes. However, some outlets began to incorporate climate change and urbanization as aggravating factors (Riyatmoko et al., 2022; Saied et al., 2024).

In the 2021 South Kalimantan floods, 40% of articles explicitly referenced ecological degradation, particularly illegal logging and land conversion (Adnan & Budirahayu, 2023). Compared to Jakarta coverage, this marked a modest shift toward root-cause framing, though still less than half of the analyzed articles.

Across both years, policy discourse gained some traction. Media began exploring legislative initiatives, local government responsibility, and institutional preparedness, signaling an effort to connect flood impacts with governance (Taufiq & Girsang, 2024). Still, regional disparities emerged: Jakarta-centric narratives were better resourced and more analytical, whereas reports from less central regions like Kalimantan remained episodic. Official voices such as environmental agencies, NGOs, and city planners dominated the narrative, providing technical legitimacy but marginalizing local community perspectives (Pohan et al., 2023).

Frame Distribution in 2025 Events

Coverage of the 2025 Jabodetabek floods was more technically sophisticated, with media drawing connections between infrastructural deficits, rainfall data, and the need for sustainable urban planning. Journalists highlighted issues like inadequate drainage systems, rapid urban expansion, and poorly managed watersheds (Gustini et al., 2021). This technical framing placed increased emphasis on human agency, implicitly calling for structural reform.

A notable trend was the rise of scientific and ecological framing. Environmental scientists and climatologists were regularly cited to explain the link between climate change and flood intensity. Some articles introduced datasets and modeled projections to support policy narratives, signaling a stronger integration of evidence-based reporting (Maghrabah, 2024). These developments illustrate growing journalistic engagement with environmental science.

Media reports on the 2025 Pekalongan floods featured narratives of community resilience and local adaptation. Coverage shifted toward a more human-centered framing, showcasing local mitigation efforts and recovery responses (Febrianty, 2021). This included success stories of civic actors and grassroots organizations, reflecting a bottom-up view of disaster response that had been relatively underreported in earlier years. However, broader ecological context remained inconsistent across coverage, with some reports offering rich environmental backdrops and others limiting discussion to logistics and damage (Kiesel et al., 2024).

Comparative Framing Trends (2020–2025)

Comparative analysis (2020 vs. 2025) shows a gradual shift: natural-disaster framing declined from 75% to 55%, while technical framing increased from 20% to 45%. References to accountability grew from 10% to 35%, though ecological drivers such as deforestation remained under 25% in both years. These findings demonstrate an evolution toward more integrated narratives, but ecological concerns are still marginal (Bell et al., 2022). Although emotional framing remains present, there is a marked increase in references to systemic urban planning flaws and institutional accountability.

Technical framing, such as the use of rainfall statistics, flood modeling, and drainage analysis, increasingly supplants simplistic ecological references. While this adds analytical depth, it also risks sidelining root environmental concerns (Anantia et al., 2023; Hidayat et al., 2021). Emerging terminology like "climate adaptation," "urban resilience," and "sustainable infrastructure" reflects this evolution toward policy-aligned and globally resonant discourse (Yunus & Syukur, 2021).

Accountability framing has also intensified. Media narratives more frequently critique policy failures and call for enhanced coordination between government bodies and private developers. This indicates a growing journalistic role in shaping public expectations and pressuring institutional change (Muspida et al., 2022; Sari, 2020). Overall, media have moved toward more solution-oriented coverage that includes both critique and policy suggestions, although full ecological contextualization remains sporadic.

Structural Barriers to Ecological Framing

A dominant factor limiting ecological framing in Indonesian media is the significant influence of corporate interests. Media organizations, particularly those operating within highly competitive commercial environments, often rely heavily on advertising revenues and sponsorship from industries such as mining, logging, and large-scale agriculture. These sectors, frequently associated with ecological degradation, wield substantial economic and political influence. As a result, media outlets face implicit and sometimes explicit pressure to avoid or downplay narratives that expose or critique environmentally harmful practices tied to these industries (Macagba & Delina, 2024). This economic entanglement restricts editorial independence and creates a conflict of interest that compromises the ability of journalists to report critically on issues of ecological concern. Consequently, flood-related stories in such media tend to focus on immediate disaster impacts or government responses, sidestepping discussions of structural causes such as deforestation or land mismanagement. The lack of structural support for environmental journalism exacerbates this issue, resulting in an underrepresentation of ecological narratives across mainstream media platforms.

Journalistic Capacity and Sensational Framing

Limited journalistic capacity and political pressures jointly constrain ecological reporting. Our data show reliance on official sources (>70%), reflecting both knowledge gaps and regulatory influence.

Prior studies confirm that sensationalism and state narratives often overshadow ecological perspectives (Nasution et al., 2023). Addressing these barriers requires newsroom training and legal protections for independent reporting. Moreover, newsroom pressures such as tight deadlines and the demand for high-impact visuals further incentivize sensationalist over explanatory journalism. The lack of environmental beats in newsrooms and the absence of professional development opportunities for journalists further restrict the capacity for sustained and critical environmental coverage. Without institutional incentives or frameworks for in-depth environmental reporting, journalistic output remains focused on spectacle over substance.

Political Influence and Regulatory Gaps

Political influence continues to shape the contours of ecological reporting in Indonesia. Journalists often operate under the shadow of state authority, especially in contexts where environmental issues intersect with government-sponsored development projects. Regulatory environments may lack clarity or actively discourage critical reporting on infrastructure or extractive projects framed as national priorities. In such cases, regulatory gaps such as the absence of whistleblower protections or media independence laws prevent journalists from challenging powerful interests (Phuong et al., 2017). Additionally, the state's emphasis on portraying developmental progress may lead to a de-emphasis or censorship of narratives that highlight environmental degradation. These constraints result in an editorial culture of self-censorship, where reporters avoid contentious ecological topics for fear of political repercussions. This political influence restricts the media's potential to hold institutions accountable for environmental mismanagement, especially in disaster-prone areas where development and ecological risk often collide.

Source Dependence and Marginalized Voices

The dominance of official and expert sources in media reporting creates a top-down narrative structure that often excludes marginalized perspectives. Journalists tend to rely on statements from government agencies, academics, and established NGOs, whose voices lend credibility but may also reinforce institutional narratives (Astuti et al., 2024). This approach often sidelines the lived experiences of local communities, particularly indigenous groups and residents of flood-prone areas, who may possess critical insights into the socio-ecological dynamics of their environments. The absence of these voices not only narrows the range of perspectives presented in flood reporting but also perpetuates a disconnect between media narratives and community realities. Incorporating grassroots sources and citizen testimonies can enhance the representativeness and authenticity of media coverage, fostering more inclusive and bottom-up narratives that reflect the true complexity of environmental challenges.

Episodic vs. Sustained Coverage

Another key issue is the episodic nature of flood reporting in Indonesia. Environmental coverage typically intensifies during crisis periods such as major floods but quickly fades from public view

once immediate damages are addressed. This reactive reporting model fails to maintain public engagement during inter-disaster periods, when policy interventions, environmental planning, and mitigation strategies are most relevant (Oliveira et al., 2024). As a result, long-term ecological risks, such as soil erosion, wetland degradation, and unsustainable urban development, receive inadequate media attention. The failure to sustain ecological narratives undermines efforts to foster a deeper public understanding of the root causes of floods and the systemic reforms required to address them. Building continuity in environmental journalism through follow-up stories, background analyses, and investigative reporting can bridge this gap and promote a culture of ecological vigilance within the media and society at large.

Global South Comparisons and Learning Opportunities

Comparative insights from other Global South countries provide useful reference points for enhancing ecological reporting in Indonesia. In South Africa, media often prioritize human-interest stories during floods, similar to Indonesian practices, which can obscure institutional accountability and long-term environmental risks (Rana, 2020). However, Latin American countries such as Brazil and Colombia have made strides in integrating ecological perspectives into flood reporting, often linking environmental degradation to socio-political inequalities and highlighting grassroots responses (Nagy et al., 2018). These narratives emphasize the interconnectedness of environmental justice and community resilience, offering a model for Indonesian media to expand beyond conventional crisis coverage. By learning from these international practices, Indonesian journalists and editors can adopt a more holistic, intersectional, and sustained approach to environmental storytelling that reflects both ecological realities and the human dimensions of climate vulnerability.

Enhancing Ecological Literacy and Editorial Support

Improving ecological literacy within newsrooms is essential for advancing critical flood reporting. Targeted training programs delivered through workshops, seminars, and certificate courses can equip journalists with the scientific and analytical skills needed to report on complex environmental issues (Cody et al., 2015). Collaborations between media organizations and academic institutions can generate shared resources, such as environmental data hubs, expert networks, and best-practice toolkits, that support informed journalism. Integrating environmental modules into journalism curricula at the university level is also critical for developing future media professionals with the capacity to engage deeply with ecological issues (Hoffmann & Blecha, 2020). These educational initiatives should be complemented by editorial reforms, including the establishment of dedicated environmental desks, increased support for investigative reporting, and newsroom policies that prioritize depth and accuracy in environmental coverage. Such institutional support is necessary to shift newsroom culture toward long-term engagement with environmental themes.

Role of Community Journalism

Community journalism plays a crucial role in addressing the narrative gaps left by mainstream media. Local media outlets and citizen journalists are often more embedded in communities affected by floods and possess contextual knowledge that national reporters may lack. These grassroots perspectives can challenge dominant narratives shaped by elite sources and highlight the localized effects of ecological degradation (Guo et al., 2023). By amplifying the voices of those most vulnerable to environmental harm, community journalism fosters more democratic and participatory forms of environmental communication. Moreover, collaborations between professional journalists and local actors such as co-reporting projects, story exchanges, and participatory investigations can enrich coverage and build trust. Supporting community media through funding, training, and digital platforms will enable these initiatives to scale their impact and contribute more robustly to national environmental discourse.

Toward Transformative Flood Reporting

In sum, ecological framing in Indonesian flood reporting remains constrained by corporate influence, political pressure, and limited journalistic capacity. While modest improvements are evident, systemic ecological drivers are still underrepresented. Addressing this gap requires both structural reform (editorial independence, legal safeguards) and capacity-building (training, community partnerships). A key limitation of our study is reliance on purposively sampled online articles, which may not capture the full diversity of media practices. Future research should expand to regional outlets and social media to enrich understanding.

CONCLUSION

This study examined how Indonesian online media framed flood disasters between 2020 and 2025 using Entman's model and ecolinguistic analysis. The results show that natural-disaster framing remained dominant, while technical narratives such as drainage and urban planning became more prominent by 2025. References to accountability and policy reform also increased, but ecological drivers like deforestation appeared in fewer than one-quarter of the articles. Coverage relied heavily on official sources and episodic reporting, limiting sustained engagement with the structural and ecological dimensions of flooding.

These findings highlight persistent barriers including corporate influence, limited ecological training for journalists, and political pressures that restrict ecological framing. Practical steps to address these gaps include strengthening journalist education, supporting community-based reporting, and ensuring greater editorial independence. Expanding research to include regional outlets and social media will provide a more comprehensive picture of disaster communication. By combining structural reform, capacity-building, and grassroots participation, Indonesian media can play a transformative role in advancing ecological literacy and resilience in the face of escalating climate threats.

REFERENCE

- Adnan, R. S., & Budirahayu, T. (2023). Natural Disasters and Public Concern for Their Causes. *Midang*, 1(1), 33–42. <https://doi.org/10.24198/midang.v1i1.43784>
- Ajman, S. (2024). Beyond Headlines: A Qualitative Analysis of Environmental Reporting in Bangladeshi Print Media. *International Journal of Science and Research Archive*, 11(2), 358–365. <https://doi.org/10.30574/ijrsra.2024.11.2.0437>
- Anantia, A. A., Masnita, Y., & Kurniawati, K. (2023). Effectiveness of Digital Music Platforms' Social Media Interaction on Advertising Trust Using Cognitive Aspects. *Manajemen Dan Bisnis*, 22(1), 1. <https://doi.org/10.24123/jmb.v22i1.624>
- Anggoro, A. D., Puspitasari, F. A., & Som, A. P. M. (2023). Robert Entman's Framing Analysis: Female Representation in 2024 Presidential Candidates on *Republika.com* and *Sindonews.com*. *Komunikator*, 15(2), 211–224. <https://doi.org/10.18196/jkm.19247>
- Anshori, M. A. A., Pawito, P., Kartono, D. T., & Hastjarjo, S. (2022). Comparative Framing: Media Strategy in Public Communication Policy. *Kne Social Sciences*. <https://doi.org/10.18502/kss.v7i5.10545>
- Astuti, E. F., Inayah, F., & Dahana, A. (2024). Resonance of Climate Crisis News Discourse in Indonesian Online Media: Reflections on Niklas Luhmann's Ecological Communication Theory Perspective. *Channel Jurnal Komunikasi*, 12(1), 66–75. <https://doi.org/10.12928/channel.v12i1.687>
- Barari, H. A., & Yacoub, R. (2024). Unmasking Media Bias and Religious Zionism's Impeding Political Influence on the Israeli-Palestinian Conflict. *American Journal of Arts and Human Science*, 3(3), 1–11. <https://doi.org/10.54536/ajahs.v3i3.2461>
- Bell, R., Dietze, M., Thielen, A. H., Cook, K., Andermann, C., Beer, A. R., Lucía, A., Ries, J. B., Brell, M., Eltner, A., Roessner, S., Schrott, L., Iserloh, T., Seeger, M., & Öztürk, U. (2022). More Than Just Fast Flowing Water: The Landscape Impact of the July 2021 West Germany Flood. <https://doi.org/10.5194/egusphere-egu22-11641>
- Cody, E. M., Reagan, A. J., Mitchell, L., Dodds, P. S., & Danforth, C. M. (2015). Climate Change Sentiment on Twitter: An Unsolicited Public Opinion Poll. *Plos One*, 10(8), e0136092. <https://doi.org/10.1371/journal.pone.0136092>
- Diprose, K., Fern, R., Vanderbeck, R. M., Chen, L., Valentine, G., Liu, C., & McQuaid, K. (2017). Corporations, Consumerism and Culpability: Sustainability in the British Press. *Environmental Communication*, 12(5), 672–685. <https://doi.org/10.1080/17524032.2017.1400455>
- Febrianty, I. (2021). The Impact of Floods on Fish Cultivation Business in Floating Net Cages in Sungai Alang Village, Karang Intan District, Banjar Regency, South Kalimantan. *Journal of Economics Finance and Management Studies*, 04(08). <https://doi.org/10.47191/jefms/v4-i8-11>

- Genisa, M. U., & Angraini, E. (2023). Sustainable Environment in the Classroom: Exploring Environmental Socioscientific Issues (ESSI) Using Mongabay Online News Site. *Jpbi (Jurnal Pendidikan Biologi Indonesia)*, 9(3), 301–307. <https://doi.org/10.22219/jpbi.v9i3.29024>
- Guo, X., Jin, H., & Qi, T. (2023). How Does Social Presence Influence Public Crisis Information Sharing Intention? Situational Pressure Perspective. *Frontiers in Public Health*, 11. <https://doi.org/10.3389/fpubh.2023.1124876>
- Gustini, S., Subandi, A., & Oktarina, Y. (2021). Gambaran Kesiapsiagaan Masyarakat Dalam Antisipasi Bencana Banjir Di Kecamatan Danau Kerinci Barat Kabupaten Kerinci. *Jurnal Ilmiah Ners Indonesia*, 2(1), 53–62. <https://doi.org/10.22437/jini.v2i1.13519>
- Hidayat, Y., Sukono, S., & Kalfin, K. (2021). Mitigation of Natural Disasters as Efforts to Minimize Unwanted Impacts in Baleendah Sub-District, Bandung Regency, Indonesia. *International Journal of Research in Community Service*, 2(2), 77–82. <https://doi.org/10.46336/ijrcs.v2i2.196>
- Hissen, N., Conway, D., & Goulden, M. (2017). Evolving Discourses on Water Resource Management and Climate Change in the Equatorial Nile Basin. *The Journal of Environment & Development*, 26(2), 186–213. <https://doi.org/10.1177/1070496517696149>
- Hoffmann, R., & Blecha, D. (2020). Education and Disaster Vulnerability in Southeast Asia: Evidence and Policy Implications. *Sustainability*, 12(4), 1401. <https://doi.org/10.3390/su12041401>
- Kiesel, J., Wolff, C., & Lorenz, M. (2024). Brief Communication: From Modeling to Reality – Insights From a Recent Severe Storm Surge Event Along the German Baltic Sea Coast. <https://doi.org/10.5194/nhess-2024-71>
- Leipold, S., & Winkel, G. (2016). Discursive Agency: (Re-)Conceptualizing Actors and Practices in the Analysis of Discursive Policymaking. *Policy Studies Journal*, 45(3), 510–534. <https://doi.org/10.1111/psj.12172>
- Macagba, S. F. A., & Delina, L. L. (2024). The State and Future of Extreme Heat Studies in Southeast Asian Megacities: Risk, Impacts and Adaptation Strategies in a Warming World. *Environmental Research Communications*, 6(11), 112003. <https://doi.org/10.1088/2515-7620/ad9145>
- Maghrabah, F. S. Q. (2024). Flood Disaster Management in Yemen and a Strategy for Addressing Its Effects in Light of Contemporary Studies and Experiences. *Journal of the Arabian Peninsula Center for Educational and Humanity Researches*, 3(22), 71–105. <https://doi.org/10.56793/pcra2213224>
- Maharani, T., & Vera, N. (2023). Framing Analysis of the Suspected Corruption Case of Agriculture Minister Syahrul Yasin Limpo. *International Journal of Multidisciplinary Research and Analysis*, 06(12). <https://doi.org/10.47191/ijmra/v6-i12-04>

- Mosurska, A., Clark-Ginsberg, A., Sallu, S. M., & Ford, J. D. (2022). Disasters and Indigenous Peoples: A Critical Discourse Analysis of the Expert News Media. *Environment and Planning E Nature and Space*, 6(1), 178–201. <https://doi.org/10.1177/25148486221096371>
- Muspida, A., Manaf, M., Tantu, A. G., Kastono, Suriandjo, H., Hasbi, H., Sudirman, S., Widodo, S., & Abdulbar, F. (2022). Analysis of Flood Prone Areas in the Walanae Watershed, Dua Boccoe District, Bone Regency. *Iop Conference Series Earth and Environmental Science*, 1109(1), 012031. <https://doi.org/10.1088/1755-1315/1109/1/012031>
- Nagy, G. J., Filho, W. L., Azeiteiro, U. M., Heimfarth, J., Verocai, J. E., & Li, C. (2018). An Assessment of the Relationships Between Extreme Weather Events, Vulnerability, and the Impacts on Human Wellbeing in Latin America. *International Journal of Environmental Research and Public Health*, 15(9), 1802. <https://doi.org/10.3390/ijerph15091802>
- Nasution, M. Z. A., Safirra, H. A. M., & Farid, A. S. (2023). Public Perception of Environmental and Sustainability Issues in North Sumatra: A Mass Media Perspective. *Jurnal Ilmu Sosial Mamangan*, 12(2), 327–342. <https://doi.org/10.22202/mamangan.v12i2.6847>
- Negara, S. B., & Rusadi, U. (2021). Media Power Practices in Building a Frame of Economic and Political News During the Presidential Election Campaign of the Republic of Indonesia 2019. <https://doi.org/10.4108/eai.16-10-2019.2304326>
- Oliveira, F., Holanda, T. C., Ana Lidia de Oliveira Silva Ramalho, Natália Varela da Rocha Kloeckner, Italo Emmanoel Mesquita Oliveira de Moura, Ricarte, T. L., & Ribeiro, K. V. (2024). Rains, Tragedies and Media Coverage: Analysis of Floods in Rio Grande Do Sul. *Revista De Gestão Social E Ambiental*, 18(4), e06861. <https://doi.org/10.24857/rgsa.v18n4-114>
- Phu^ong, L. T., Biesbroek, R., Sen, L. T. H., & Wals, A. E. J. (2017). Understanding Smallholder Farmers' Capacity to Respond to Climate Change in a Coastal Community in Central Vietnam. *Climate and Development*, 10(8), 701–716. <https://doi.org/10.1080/17565529.2017.1411240>
- Pohan, S., Sari, R., & Maisyarah, M. (2023). Pembingkatan Bobby Nasution Pada SINDOnews.com Dalam Mengatasi Banjir Dan Kemacetan Di Kota Medan. *Mukasi Jurnal Ilmu Komunikasi*, 2(2), 111–123. <https://doi.org/10.54259/mukasi.v2i2.1559>
- Rana, S. M. S. (2020). Supply Chain Drivers and Retail Supply Chain Responsiveness: Strategy as Moderator. *International Journal of Management Practice*, 13(1), 1. <https://doi.org/10.1504/ijmp.2020.10025714>
- Riyatmoko, A., Sanjoto, T. B., & Juhadi, J. (2022). Impact of the Rob Flood Disaster in North Pekalongan. *Iop Conference Series Earth and Environmental Science*, 1089(1), 012016. <https://doi.org/10.1088/1755-1315/1089/1/012016>
- Roosvall, A., & Tegelberg, M. (2015). Media and the Geographies of Climate Justice: Indigenous Peoples, Nature and the Geopolitics of Climate Change. *Triplec Communication Capitalism & Critique Open Access Journal for a Global Sustainable Information Society*, 13(1). <https://doi.org/10.31269/triplec.v13i1.654>

- Saied, M. S., Ghahroudi, N. M., & Shahmansouri, B. (2024). Media and Approaches to Political-Social Crises. *Jspich*, 3(1), 296–312. <https://doi.org/10.61838/kman.jspich.3.1.17>
- Sari, K. P. K. (2020). Reaksi Pasar Modal Terhadap Peristiwa Bencana Banjir Di Jakarta, Bogor, Depok, Tangerang, Dan Bekasi (Jabodetabek) Pada Bulan Januari 2020. *Competitive Jurnal Akuntansi Dan Keuangan*, 4(2), 177. <https://doi.org/10.31000/c.v4i2.2529>
- Schwarz, A., & Diers-Lawson, A. (2024). Mediated Crises and Strategic Crisis Communication of Third Sector Organizations: A Content Analysis Of crisis Reporting in Six Countries. *Corporate Communications an International Journal*, 29(4), 567–591. <https://doi.org/10.1108/ccij-08-2023-0117>
- Setyawan, I., Johansah, F., Prayogi, A., & Efda, A. D. (2023). Analisis Framing Pemberitaan Gagal Ginjal Akut Di Channel Youtube Kompas TV, TV One News Dan CNN Indonesia. *Journal of Education Humaniora and Social Sciences (Jehss)*, 6(2), 610–619. <https://doi.org/10.34007/jehss.v6i2.1915>
- Shoqat, I., Zafar, J., Kanwal, T., & Kausar, F. (2023). Psychological Effect on Children at Secondary Level After Flood Disaster District RajanPur. *Vfast Transactions on Education and Social Sciences*, 11(1), 70–75. <https://doi.org/10.21015/vtess.v11i1.1410>
- Sujoko, A., & Fahira, N. A. (2021). The Role of Media Framing as Watchdog for Forest and Land Fires in Indonesia. *Aristo*, 10(1), 61–79. <https://doi.org/10.24269/ars.v10i1.3702>
- Sunaryanto, S., & Rizal, S. (2023). Ideological Construction of the Mass Media: Study of Religious Moderation News in the National Online News Media and Its Relation to Moderate Da'wah. *Ilmu Dakwah Academic Journal for Homiletic Studies*, 17(1), 101–134. <https://doi.org/10.15575/idajhs.v17i1.18109>
- Taufiq, M. I., & Girsang, A. S. (2024). Utilization of Geocoding for Mapping Infrastructure Impacts and Mobility Due to Floods in Indonesia Based on Twitter Analytics. *Jppi (Jurnal Penelitian Pendidikan Indonesia)*, 10(3), 903. <https://doi.org/10.29210/020244467>
- Tjahyana, L. J., & Lesmana, F. (2024). Entity Sentiment Analysis With the Netray Monitoring Tool in Indonesian Online News Media on the Fuel Price Hike. *Information & Media*, 99, 106–125. <https://doi.org/10.15388/im.2024.99.6>
- Toumbourou, T., Dressler, W., Sanders, A., Liu, E., Brown, T., & Utomo, A. (2023). Who Are the Future Farmers? Media Representations of Youth in Agriculture, Food Security and 'Modern' Farming in Indonesia. *Asia Pacific Viewpoint*, 64(2), 188–208. <https://doi.org/10.1111/apv.12374>
- Vann, B. (2023). The Framing of Marijuana in Black Newspapers. *The International Journal of Press/Politics*, 30(1), 370–397. <https://doi.org/10.1177/19401612231213277>
- Vu, H. T., Blomberg, M., Seo, H., Liu, Y., Shayesteh, F., & Viet, H. D. (2020). Social Media and Environmental Activism: Framing Climate Change on Facebook by Global NGOs. *Science Communication*, 43(1), 91–115. <https://doi.org/10.1177/1075547020971644>

Yunus, P., & Syukur, S. B. (2021). Analisis Tingkat Pengetahuan Masyarakat Dalam Penanggulangan Dampak Kesehatan Akibat Bencana Banjir Di Desa Pone Kecamatan Limboto Barat Kabupaten Gorontalo. *Kampurui Jurnal Kesehatan Masyarakat (The Journal of Public Health)*, 3(2), 93–98. <https://doi.org/10.55340/kjkm.v3i2.488>