

Environmental Movements and Digital Democracy in Indonesia: Social Media Mobilization against Extractive Industries

Adinda Maharani*^{ID}

Universitas Diponegoro, Semarang, Indonesia
adindamaharani@students.undip.ac.id

Eki Fajar Hidayat^{ID}

Universitas Diponegoro, Semarang, Indonesia
ekifajarhidayat@gmail.com

Andre Wawan Kurniawan^{ID}

Universitas Diponegoro, Semarang, Indonesia
wawan_kur76@gmail.com

DOI: <https://doi.org/10.65815/mjgene11>

Submitted: 21-01-2026

Revised: 11-03-2026, 28-05-2026

Accepted: 30-06-2026

*Corresponding Author

Abstract

Environmental movements in Indonesia increasingly use social media to organize campaigns against mining, plantation expansion, infrastructure development, and other extractive activities. Digital communication allows local communities and environmental organizations to connect with national and international audiences, potentially increasing political pressure on government and corporate actors. This article examines digital mobilization by Indonesian environmental movements. Using qualitative social movement and digital discourse analysis, the study explores campaign narratives, visual communication, online petitions, community testimonies, and network formation. The article argues that digital platforms can amplify local environmental grievances and transform geographically isolated disputes into national political issues. However, activists may also face online harassment, misinformation, surveillance concerns, and legal pressure. The study proposes a digital environmental democracy framework emphasizing community ownership of narratives, evidence-based communication, digital security, and institutional responsiveness. The article concludes that environmental movements represent an important form of contemporary democratic participation in Indonesia and that digital communication has become central to their ability to influence public policy.

[Gerakan lingkungan di Indonesia semakin banyak menggunakan media sosial untuk mengorganisir kampanye melawan pertambangan, perluasan

perkebunan, pembangunan infrastruktur, dan kegiatan ekstraktif lainnya. Komunikasi digital memungkinkan komunitas lokal dan organisasi lingkungan untuk terhubung dengan audiens nasional dan internasional, yang berpotensi meningkatkan tekanan politik pada pemerintah dan aktor korporasi. Artikel ini mengkaji mobilisasi digital oleh gerakan lingkungan Indonesia. Dengan menggunakan analisis gerakan sosial kualitatif dan analisis wacana digital, studi ini mengeksplorasi narasi kampanye, komunikasi visual, petisi daring, kesaksian masyarakat, dan pembentukan jaringan. Artikel ini berpendapat bahwa platform digital dapat memperkuat keluhan lingkungan lokal dan mengubah perselisihan yang terisolasi secara geografis menjadi isu politik nasional. Namun, para aktivis juga dapat menghadapi pelecehan daring, disinformasi, kekhawatiran pengawasan, dan tekanan hukum. Studi ini mengusulkan kerangka kerja demokrasi lingkungan digital yang menekankan kepemilikan narasi oleh masyarakat, komunikasi berbasis bukti, keamanan digital, dan responsivitas kelembagaan. Artikel ini menyimpulkan bahwa gerakan lingkungan merupakan bentuk penting partisipasi demokratis kontemporer di Indonesia dan bahwa komunikasi digital telah menjadi pusat kemampuan mereka untuk memengaruhi kebijakan publik.]

Keywords: Environmental movements, digital democracy, social media, extractive industries, Indonesia

Introduction

Environmental conflicts in Indonesia frequently emerge from competing claims over land, natural resources, livelihoods, and development priorities. Mining, plantation expansion, infrastructure projects, and other extractive activities may generate economic benefits while simultaneously producing disputes concerning ecological degradation, access to resources, and community participation. These conflicts have traditionally been communicated through face-to-face meetings, demonstrations, petitions, organizational networks, and conventional media. The expansion of digital communication, however, has changed the conditions under which environmental grievances become publicly visible. Social media enables communities and environmental organizations to disseminate information rapidly, document events, construct collective narratives, and connect local struggles with audiences beyond the immediate geographical location. Research on Indonesian environmental organizations demonstrates that internet use can strengthen political participation by expanding communication networks and connecting local environmental concerns to wider information flows (Kurniawan and Rye 2014).

The transformation is particularly important because environmental conflicts often involve unequal communicative resources. Government institutions and corporations may possess greater access to institutional communication channels,

professional public relations, mainstream media, and legal resources. Communities affected by extractive projects may therefore need alternative mechanisms through which their experiences can enter public debate. Social media potentially changes this imbalance by reducing the cost of publishing information and enabling citizens to become producers rather than merely recipients of political communication. Studies of Indonesian environmental campaigns indicate that social media can facilitate public awareness, environmental education, and interaction between activists and audiences (Susanto and Thamrin 2021). In this context, digital communication should not be regarded merely as an additional publicity instrument. It constitutes a communicative infrastructure through which marginalized environmental claims may acquire visibility and political significance.

Previous studies have documented several dimensions of this transformation. Research on environmental conservation found that social-media engagement can be associated with participation in offline environmental activities, suggesting that digital interaction does not necessarily remain detached from collective action (Kapriani and Lubis 2015). Research on online environmental organizations similarly demonstrated that digital communication can strengthen awareness campaigns and political advocacy (Kurniawan and Rye 2014). Other studies have examined specific cases involving mining resistance, including conflicts in Bangka, Kendeng, and Wadas. These studies indicate that digital platforms can support solidarity, counter dominant narratives, circulate evidence, and connect geographically dispersed actors (Großmann 2018; Hari 2023; Sarjani 2023). Consequently, the relationship between social media and environmental movements should be understood through the interaction between communication, organization, identity, and political contestation rather than through technological determinism.

The existing literature nevertheless leaves an important analytical gap. A considerable part of the discussion focuses either on the effectiveness of particular platforms or on individual campaigns, while less attention is devoted to how digital communication contributes to the broader democratic process surrounding extractive conflicts. Digital visibility may help a community gain public sympathy, but visibility alone does not guarantee policy change, institutional accountability, or meaningful participation in decision-making. Similarly, a campaign can generate substantial engagement without necessarily transferring political agency to affected communities. Studies of environmental campaigns have shown that social-media interaction may influence awareness and participation, but the relationship between engagement and sustained political action remains contingent upon organizational capacity and offline opportunities (Ulfa and Fatchiya 2019; Rahmadhani and Sari 2022).

This article therefore makes a conceptual contribution by examining environmental digital activism as a component of democratic participation rather than simply as a communication strategy. The central argument is that social media

contributes to environmental democracy through four interconnected functions: enabling communities to articulate environmental grievances, facilitating networked mobilization, challenging dominant representations of development, and creating pressure for institutional responsiveness. These functions are not automatically produced by technological access. They depend upon the credibility of information, the strength of social networks, the ability to connect online communication with offline organization, and the extent to which public institutions respond to digitally articulated demands. The article consequently develops a digital environmental democracy framework that emphasizes the relationship between narrative ownership, network formation, evidence-based advocacy, and institutional accountability.

Methodologically, the article employs qualitative analysis of existing empirical studies concerning digital environmental activism in Indonesia. The analysis focuses on cases involving mining, conservation, environmental campaigns, waste management, climate advocacy, and community-based ecological movements. Rather than treating individual platforms as isolated objects, the study compares how different forms of digital communication contribute to mobilization, public deliberation, and political pressure. The literature examined consists of peer-reviewed journal articles published before 2026, with particular attention to empirical studies conducted in Indonesia. The analytical strategy identifies recurring patterns across cases and uses them to formulate a broader interpretation of the democratic role of environmental digital activism.

Digital Narratives and the Political Construction of Environmental Grievances

Environmental conflicts are fundamentally conflicts over interpretation as much as they are conflicts over physical resources. The same mining project, infrastructure development, or land-use policy can be presented by different actors as economic progress, national development, environmental necessity, or ecological destruction. Social media gives communities the capacity to intervene directly in this interpretive struggle. Instead of waiting for external media institutions to define an environmental dispute, activists can produce photographs, videos, testimonies, maps, infographics, and personal narratives that explain how a policy affects everyday life. This communicative capacity is important because environmental damage is frequently experienced locally while policy decisions are made at a distance. Digital communication can therefore reduce the representational distance between affected communities and broader publics. Research on Indonesian environmental activism demonstrates that social media has become an important instrument for communicating environmental information and constructing public awareness (Susanto and Thamrin 2021).

The political importance of digital environmental narratives lies in their ability to transform technical environmental problems into questions of justice. Mining,

deforestation, reclamation, pollution, and infrastructure development can appear abstract when discussed exclusively through administrative documents or economic indicators. Activist communication can instead connect these issues with farmers' livelihoods, fishermen's access to coastal resources, community health, cultural identity, and intergenerational ecological security. The anti-mining campaign in Bangka illustrates how social media facilitated the circulation of information about mining impacts while simultaneously strengthening solidarity among actors who did not previously constitute a unified political constituency (Großmann 2018). The digital narrative consequently does more than inform audiences. It reorganizes how a problem is understood by connecting environmental degradation with questions of rights, livelihood, and political responsibility.

This narrative process is also visible in the use of environmental imagery. Photographs of damaged landscapes, polluted rivers, threatened forests, or community protests can function as evidence and political symbols simultaneously. Visual communication reduces the distance between audiences and environmental consequences because it translates complex ecological processes into recognizable experiences. Research on environmental campaigns in Indonesia has shown that Instagram can function as a campaign medium for disseminating environmental information and encouraging public responses (Fadli and Sazali 2023). Visual content can therefore create an affective connection that complements factual argumentation. Nevertheless, visual communication should not be equated automatically with reliable environmental knowledge. The political effectiveness of images depends upon contextual information, source credibility, and the ability of activists to connect visual evidence with verifiable claims.

Hashtags represent another mechanism through which fragmented environmental concerns can become recognizable as collective issues. A hashtag condenses a complicated dispute into a communicative sign that can be reproduced by individuals who are not formally affiliated with an organization. The #KendengMelawan movement, for example, illustrates how social media became an arena in which resistance to cement development was communicated through narratives of environmental preservation, women's participation, and ecological sustainability (Hari 2023). Hashtags consequently function as more than search mechanisms. They can provide symbolic boundaries around a movement, allowing dispersed actors to recognize themselves as participants in a common struggle. This process is especially important in decentralized movements where organizational membership is fluid and participation may vary according to the intensity of the conflict.

Digital narratives can also challenge the assumption that environmental movements merely oppose development. Activists increasingly frame their arguments around alternative conceptions of development, sustainability, participation, and distributive justice. This distinction matters because opposition to extractive projects is frequently portrayed as resistance to modernization or

economic growth. By presenting environmental consequences alongside proposals for sustainable livelihoods and participatory decision-making, movements can contest the conceptual framework within which development decisions are made. Research concerning Indonesian online environmental activism shows that digital communication can create opportunities for environmental organizations to participate in broader political discussions (Kurniawan and Rye 2014). The political significance of such communication therefore lies not only in rejecting particular projects but also in challenging the criteria used to define legitimate development.

Community narratives are particularly important because environmental movements risk becoming dominated by professional advocacy organizations. Organizations with greater digital expertise may possess the ability to produce sophisticated campaigns, while affected communities may become sources of stories without retaining control over how those stories are represented. Digital democracy therefore requires attention to narrative ownership. The Bangka case demonstrates both the possibilities and limitations of social media because digitally connected activists were able to amplify the anti-mining campaign while some local villagers remained constrained by unequal internet access (Großmann 2018). This finding suggests that amplification can simultaneously empower and marginalize. A movement becomes more democratic when affected communities are not merely represented online but participate in determining what is communicated, how evidence is interpreted, and which political demands are prioritized.

The relationship between evidence and narrative is another crucial element. Environmental advocacy can lose credibility when emotional narratives are circulated without adequate documentation. Conversely, highly technical information may fail to mobilize public attention if it is presented without accessible explanation. Effective digital advocacy therefore requires the integration of evidence and storytelling. Research on environmental organizations indicates that social media has been used to educate audiences regarding the causes and consequences of environmental problems (Susanto and Thamrin 2021). This suggests that environmental movements can strengthen democratic deliberation when they make complex environmental information understandable without sacrificing accuracy. The communicative challenge is to create messages that are sufficiently accessible for broad publics while maintaining evidentiary standards necessary for responsible political debate.

Digital environmental communication also facilitates the personalization of environmental politics. Individual activists can become recognizable communicators whose credibility is associated with direct experience, professional knowledge, or sustained involvement in environmental campaigns. Research on women environmental activists on Instagram indicates that digital platforms can expand opportunities for individual activists to develop networks and communicate environmental concerns from gendered and ecological perspectives (Laoera 2023). Personalization can humanize environmental struggles and attract audiences that

may not respond to institutional communication. However, it can also create dependency on particular personalities. If public attention becomes attached primarily to influencers rather than collective institutions, the movement may become vulnerable to leadership concentration and fluctuations in individual popularity.

The narrative function of social media is particularly significant when environmental movements confront dominant institutional communication. Government agencies and corporations may frame extractive projects through the language of investment, infrastructure, national interest, employment, or public benefit. Activists can introduce alternative frames emphasizing ecological risk, procedural injustice, displacement, or community rights. Research on Wadas demonstrates how digital communication was used to circulate alternative narratives surrounding opposition to andesite mining and to expand support beyond the affected locality (Sarjani 2023). Digital communication thus creates a competitive interpretive environment in which institutional narratives are no longer the only narratives available to the public.

Yet the democratizing potential of narrative competition should not be romanticized. Digital platforms reward content that attracts attention, and environmental conflicts can become simplified into emotionally polarized narratives. Complex questions involving environmental impact assessments, compensation, land ownership, and regulatory procedures may be reduced to binary oppositions between victims and villains. Such simplification can increase engagement but reduce deliberative quality. The challenge for environmental movements is therefore to balance moral urgency with analytical complexity. Digital communication becomes democratically productive when it does not merely intensify outrage but also helps citizens understand competing interests, institutional responsibilities, scientific evidence, and possible policy alternatives.

Environmental campaigns can also use digital narratives to connect local problems with broader ecological identities. A conflict concerning one mine or one infrastructure project can be presented as part of a wider pattern involving environmental degradation, extractive governance, climate vulnerability, or unequal development. This process creates what may be described as issue generalization, through which a geographically specific grievance acquires broader political meaning. Research on digital environmental campaigns shows that social media enables organizations to disseminate environmental concerns beyond their immediate local constituencies (Kurniawan and Rye 2014; Sanjaya 2018). Such generalization is important because political pressure frequently depends upon the ability to connect a local dispute with national debates concerning public policy.

The use of digital narratives also changes the temporal dimension of environmental activism. Traditional protests are often episodic, with mobilization intensifying around particular demonstrations, hearings, or policy decisions. Social media allows activists to maintain a continuous communication stream before, during, and after physical actions. Environmental information can remain

accessible after a protest has ended, while new developments can reactivate previous narratives. Research concerning online environmental movements demonstrates that digital communication can support continuing interaction rather than one-time mobilization (Ismail, Munsir, and Hans 2019). This continuity enables movements to preserve collective memory and maintain public attention even when conventional news coverage declines.

Taken together, these findings indicate that digital environmental activism should be understood as a struggle over political meaning. Social media provides communities with tools for defining problems, presenting evidence, establishing identities, and challenging dominant interpretations of development. The democratic contribution of these practices depends on whether affected communities retain meaningful control over their narratives and whether digital communication promotes informed participation rather than merely emotional visibility. Environmental movements become more politically consequential when their narratives are simultaneously locally grounded, evidentially credible, and capable of connecting specific ecological conflicts with broader questions of justice and governance.

Networked Mobilization, Solidarity, and the Expansion of Environmental Participation

The organizational structure of environmental movements has also been transformed by digital communication. Earlier forms of collective action often depended heavily on formal organizations, local associations, political parties, or established activist networks. Social media enables individuals to join campaigns without necessarily becoming members of formal organizations. This lowers the threshold for participation and allows movements to draw support from heterogeneous actors. Research on online social movements in Indonesia indicates that information technology has become an important component of collective action because it facilitates communication among individuals and organizations that may otherwise remain disconnected (Ismail, Munsir, and Hans 2019). Digital mobilization consequently changes not only the speed of organizing but also the composition of environmental movements.

This networked structure is particularly relevant to extractive conflicts because affected communities are often geographically distant from national political centers. A village experiencing mining pressure may have limited access to journalists, legal experts, academics, or national advocacy organizations. Social media can bridge this geographical separation by enabling direct communication with actors outside the locality. The Bangka anti-mining campaign demonstrates how Facebook and WhatsApp supported communication among villagers, activists, tourism actors, and other participants, contributing to solidarity and collective coordination (Großmann 2018). The significance of such connectivity lies in its ability to transform spatially isolated grievances into networked political claims.

Hashtag networks further demonstrate how digital mobilization can expand participation beyond formal organizational boundaries. The Wadas case provides an example of how online discussion surrounding the conflict connected local resistance with external supporters. Social network analysis of the #WadasSuing hashtag indicates that digital communication created relationships among different accounts and communities involved in the conflict (Sarjani 2023). Hashtags can therefore function as temporary organizational infrastructures. They allow participants to find information, identify allies, redistribute messages, and signal solidarity without requiring centralized membership. Such connective structures are particularly useful when movements need to respond rapidly to arrests, environmental incidents, policy decisions, or other unexpected events.

The speed of digital communication changes the tactical capacity of environmental movements. Information about a sudden environmental incident can be circulated within minutes, allowing activists to request assistance, mobilize observers, or draw attention from journalists. This rapid circulation is especially significant in conflicts where information asymmetry is substantial. Communities can document developments in real time rather than waiting for formal institutional reports. Research on environmental digital activism has repeatedly identified rapid information dissemination as one of the principal benefits of social media (Susanto and Thamrin 2021). Nevertheless, speed creates an important democratic dilemma: information can circulate before it has been verified. The same infrastructure that accelerates legitimate mobilization can also accelerate rumors and inaccurate claims.

Digital participation also expands the repertoire of environmental activism. Collective action is no longer limited to demonstrations, meetings, petitions, or direct lobbying. Citizens can share campaign materials, sign digital petitions, donate resources, provide expertise, translate information, monitor developments, or amplify testimonies. Research concerning online environmental petitions demonstrates how digital platforms can facilitate collective signatures and connect environmental concerns with policymakers and other decision-makers (Sanjaya 2018). These practices allow individuals with different levels of commitment and available time to participate in different ways. Consequently, digital activism can accommodate a wider spectrum of participation than traditional movements that require physical presence.

The availability of multiple participation forms can strengthen the resilience of environmental movements. If one channel becomes ineffective, activists may shift toward another. A movement can combine social media campaigns with public demonstrations, legal advocacy, community meetings, petitions, fundraising, and media engagement. Such hybridity is evident across Indonesian environmental cases. The anti-mining movement in Bangka, for example, combined offline activities with Facebook and WhatsApp communication, demonstrating that digital platforms complemented rather than replaced physical organizing (Großmann 2018). Digital communication should therefore be

understood as part of a broader repertoire of action in which online and offline practices mutually reinforce each other.

Environmental conservation campaigns provide additional evidence of this relationship. Research on environmental conservation communities found that social-media engagement can contribute to participation in offline activities (Kapriani and Lubis 2015). Similarly, research on environmental campaigning through Instagram demonstrates that digital content can attract attention and encourage audiences to participate in campaign activities (Ulfa and Fatchiya 2019). These findings challenge the assumption that online activism is necessarily superficial. Digital interaction may become politically meaningful when it creates pathways toward concrete participation. The key issue is therefore not whether participation occurs online or offline but whether digital engagement is connected to opportunities for collective action and institutional influence.

Youth participation illustrates the expanding social base of environmental movements. Digital platforms enable younger citizens to engage with environmental issues without first entering formal organizations. Visual storytelling, short videos, and participatory campaigns can make environmental issues accessible to audiences accustomed to mobile communication. Research on youth-oriented environmental campaigns in Indonesia indicates that emotionally engaging visual narratives can stimulate digital interaction and encourage participation in environmental activities (Febriana and Rosmilawati 2024). This suggests that digital environmental movements can become important spaces for political socialization. Young participants may acquire knowledge about environmental policy, develop collective identities, and experience forms of civic participation through environmental campaigns.

However, expanded participation does not necessarily produce equal participation. Digital access remains socially differentiated by geography, socioeconomic status, age, technological competence, and network quality. The Bangka case is particularly important because it shows that villagers directly affected by mining could experience exclusion from digital spaces because of unequal internet access (Großmann 2018). A movement that relies excessively on digital communication may therefore reproduce the inequalities it seeks to challenge. Digital democracy requires complementary offline mechanisms that ensure communities with limited access to digital technologies can still shape campaign strategies and political demands. Technology should expand participation rather than become a new condition for political visibility.

Networked mobilization can also create new forms of horizontal solidarity. Participants may support an environmental campaign even when they have no direct connection to the affected community. Social media makes it possible for environmental conflicts to become objects of national concern. Individuals can identify with a cause through shared values such as environmental justice, indigenous rights, sustainability, or opposition to ecological destruction. Women-led environmental activism illustrates how digital spaces can connect ecological

concerns with gender, community, and political identity (Hari 2023; Laoera 2023). This demonstrates that environmental mobilization is not necessarily organized around a single issue. It can become a broader arena in which different social identities and political concerns intersect.

Another important feature of networked mobilization is the ability to connect environmental organizations with local communities. Established organizations may possess legal expertise, communication skills, and national or international networks, while communities possess experiential knowledge of local environmental conditions. Digital platforms can facilitate exchanges between these forms of knowledge. Research on Indonesian environmental organizations suggests that both well-established organizations and smaller informal groups can benefit from internet-based communication, although they benefit in different ways (Kurniawan and Rye 2014). This implies that digital networks can create complementary relationships rather than simply centralized organizational structures. The democratic value of such networks depends on whether professional organizations treat local communities as political partners rather than merely as sources of campaign content.

At the same time, decentralized networks can produce coordination difficulties. When participation is open and leadership is distributed, disagreements concerning campaign priorities may emerge. Different actors may interpret the same environmental conflict through different political frameworks. Some may prioritize legal strategies, others street protests, while others emphasize public communication. Social media can make these disagreements highly visible and potentially intensify internal fragmentation. Digital movements therefore require mechanisms for deliberation and coordination even when they avoid rigid organizational hierarchies. The effectiveness of networked activism depends not simply on the number of participants but on the movement's capacity to maintain strategic coherence while preserving plural participation.

The most significant implication is that digital mobilization expands the meaning of environmental citizenship. Citizens can participate in environmental politics not only as voters or members of formal organizations but also as information producers, witnesses, campaigners, network builders, and public advocates. Digital platforms enable these roles to emerge through relatively low-cost forms of participation. Yet democratic environmental citizenship requires more than the ability to circulate content. Participation becomes substantive when citizens can influence agendas, shape decisions, hold institutions accountable, and contribute to solutions. Digital networks are therefore most valuable when they connect communicative participation with organizational capacity and institutional opportunities.

From Digital Visibility to Political Pressure and Environmental Democratic Accountability

The democratic significance of environmental digital activism ultimately depends on whether online visibility can produce consequences beyond the platform. A campaign may receive thousands of likes, shares, comments, and hashtag mentions while generating little institutional response. Conversely, a relatively small digital campaign may become politically influential if it reaches journalists, legislators, courts, regulators, or other decision-making institutions. The relationship between visibility and political influence is therefore nonlinear. Digital communication creates opportunities for pressure, but the conversion of attention into institutional change requires additional mechanisms. Research on environmental campaigns in Indonesia suggests that social media can increase public awareness and facilitate advocacy, but the political consequences depend on how communication connects with offline action and institutional processes (Susanto and Thamrin 2021; Kapriani and Lubis 2015).

One pathway from digital visibility to political pressure occurs through mainstream media amplification. Environmental activists can publish information directly online and subsequently attract journalists who use digital content as sources for broader reporting. This process can transform a local environmental dispute into a national news issue. The resulting visibility may increase reputational costs for government institutions or corporations and create incentives for public responses. Social media therefore does not necessarily eliminate traditional media; instead, the two can become interconnected within a hybrid communication environment. Environmental movements gain greater influence when their digital communication is sufficiently credible and newsworthy to move across media systems.

Another pathway involves direct communication with political institutions. Digital platforms allow citizens to address government agencies, elected officials, and corporations without relying exclusively on intermediaries. Campaigns can tag institutions, distribute policy demands, circulate petitions, and publicly monitor official responses. Online petitions are particularly relevant because they translate dispersed support into a visible numerical indicator of public concern. Research on digital petitions in environmental movements demonstrates that online signatures can be directed toward policymakers and other responsible actors (Sanjaya 2018). Such mechanisms do not guarantee policy change, but they can create an additional layer of public accountability by documenting the existence of organized demands.

Digital communication can also strengthen accountability through documentation. Environmental conflicts often involve disputes about what happened, who was affected, and whether authorities responded appropriately. Photographs, videos, testimonies, and archived social-media posts can create alternative records of events. This documentation may support advocacy,

journalistic investigation, or legal processes. In this respect, digital activism performs a quasi-monitoring function. Communities can document environmental impacts and institutional responses over time, making it more difficult for contested events to disappear from public memory. The archival function of digital activism therefore contributes to accountability by preserving evidence and maintaining public attention.

The Wadas conflict demonstrates the importance of documentation and networked communication in environmental resistance. Digital discussion helped connect the local dispute with broader debates concerning land rights, environmental protection, and development policy (Sarjani 2023). The significance of the case is not simply that social media increased the number of people aware of Wadas. More importantly, digital communication altered the political scale of the conflict. A dispute that originated in a particular locality became a national issue through the circulation of information and collective interpretation. This process illustrates how digital communication can transform the geographical boundaries within which environmental accountability is pursued.

The Bangka anti-mining campaign provides another illustration of how digital communication can contribute to political pressure. Social media facilitated mobilization, information exchange, transparency, and solidarity among diverse participants involved in opposing mining activities (Großmann 2018). The case suggests that political influence emerged from the interaction between digital communication and offline organizing rather than from social media activity alone. This is important because it challenges technological explanations of successful activism. The platform did not independently produce political change. Instead, it provided communication infrastructure that enabled existing social relationships, local grievances, and activist networks to coordinate more effectively.

The effectiveness of digital environmental campaigns can also be assessed through changes in public attitudes. Quantitative research concerning Greenpeace's Twitter communication in Indonesia found a measurable relationship between social-media exposure and environmental concern, although the explanatory power of the platform was limited and other factors remained important (Rahmadhani and Sari 2022). This finding is analytically significant because it cautions against attributing behavioral or political change to social media alone. Digital communication may contribute to awareness while broader social, economic, educational, and political conditions determine whether awareness develops into action. Digital environmental democracy therefore requires a multidimensional understanding of impact rather than relying solely on engagement metrics.

Campaign design also affects whether visibility becomes participation. Research concerning Instagram-based environmental campaigns indicates that effective communication can stimulate attention, interest, desire, and action among audiences (Ulfa and Fatchiya 2019). However, audience engagement does not automatically produce sustained activism. Campaigns need explicit pathways

through which followers can participate, such as attending events, contacting institutions, supporting community initiatives, donating resources, or sharing verified information. Digital communication becomes politically meaningful when audiences are given opportunities to move from passive consumption to active citizenship.

The risk of symbolic participation is particularly important in environmental movements. Social media allows users to express solidarity with a single click, but such actions may have limited consequences if they are not connected with sustained engagement. This phenomenon does not mean that likes, shares, or hashtags are politically irrelevant. They can contribute to visibility and signal public concern. However, their democratic value increases when they form part of a broader participation chain. Environmental organizations therefore need to distinguish between communicative reach and political effectiveness. The first concerns how widely a message circulates; the second concerns whether circulation contributes to collective capacity and institutional response.

Political pressure can also be weakened by misinformation. Environmental issues often involve technically complex claims concerning pollution, biodiversity, climate impacts, land ownership, and regulatory procedures. In highly polarized conflicts, actors may selectively circulate information that confirms their preferred narrative. False or exaggerated claims can undermine activist credibility and provide opponents with opportunities to dismiss legitimate environmental concerns. Consequently, evidence-based communication is not simply an ethical preference but a strategic requirement. Environmental movements need procedures for verifying information, identifying sources, correcting errors, and distinguishing testimony from independently verified evidence.

Digital repression constitutes another limitation. Environmental activists may face online harassment, intimidation, surveillance, account attacks, or attempts to discredit their credibility. Although digital communication expands visibility, greater visibility can increase vulnerability. Activists operating in politically contentious environments must therefore consider digital security as part of movement strategy. The problem is especially significant when environmental conflicts involve powerful political or economic interests. Democratic digital activism requires protection for the communicative rights of citizens, including the ability to criticize policies and institutions without facing disproportionate retaliation.

Institutional responsiveness ultimately determines whether digital environmental activism contributes to democratic governance. Governments may acknowledge online campaigns without changing policies, or they may respond symbolically while substantive decisions remain unchanged. Genuine democratic responsiveness requires institutions to establish mechanisms through which digitally articulated concerns can enter formal decision-making. Public consultations, environmental assessments, grievance mechanisms, transparent information systems, and participatory planning can provide such pathways. Social

media is most democratically valuable when it connects citizens to these institutional mechanisms rather than becoming a substitute for them.

The resulting relationship can be conceptualized as a cycle rather than a linear process. Environmental grievances generate narratives; narratives attract networks; networks create mobilization; mobilization produces visibility; visibility generates political pressure; institutional responses then produce new information that can either strengthen or weaken the movement. This cycle explains why successful digital environmental activism cannot be measured through a single indicator. A campaign may have high visibility but weak organization, strong organization but limited institutional access, or substantial public support but insufficient evidence. Digital environmental democracy emerges when these components reinforce one another.

The central implication is that environmental movements should evaluate digital communication according to its capacity to produce democratic consequences. Metrics such as followers, impressions, views, and shares remain useful indicators of communicative reach, but they are insufficient indicators of political success. More meaningful indicators include community participation in campaign decisions, changes in public knowledge, access to decision-makers, institutional transparency, policy responsiveness, and protection of affected communities. Such an approach moves environmental digital activism beyond the logic of publicity toward a more substantive conception of democratic accountability.

Conclusion

The analysis demonstrates that social media has become an important component of environmental mobilization in Indonesia because it changes how environmental grievances are narrated, organized, and brought into political debate. Digital platforms enable communities and environmental organizations to communicate directly with broader publics, construct counter-narratives, document environmental problems, develop collective identities, and connect local conflicts with national networks. Studies of Bangka, Kendeng, Wadas, environmental conservation campaigns, and broader Indonesian environmental organizations demonstrate that digital communication can strengthen solidarity and expand opportunities for participation (Großmann 2018; Hari 2023; Sarjani 2023; Kurniawan and Rye 2014). Nevertheless, the democratic significance of social media cannot be reduced to technological access or communication volume. Digital platforms become politically meaningful when affected communities retain narrative ownership and when online participation is connected with sustained collective action.

The principal problem is therefore not whether social media can mobilize environmental movements, but under what conditions digital mobilization contributes to democratic environmental governance. The evidence suggests that

four conditions are particularly important: credible and evidence-based narratives, inclusive network formation, connections between digital and offline action, and institutional responsiveness. Social media can amplify environmental grievances, but amplification without accuracy can produce misinformation; participation without inclusion can reproduce digital inequalities; visibility without organizational capacity can result in temporary attention; and public pressure without institutional mechanisms may fail to produce policy change. The proposed digital environmental democracy framework consequently places communication within a broader democratic process in which citizens must be able to articulate environmental concerns, participate in collective decision-making, and demand accountability from public and private institutions.

Future research should move beyond platform-centered studies and examine the long-term political consequences of environmental digital activism. Comparative research could investigate whether different forms of digital mobilization produce different outcomes across mining, plantation, infrastructure, coastal, forest, and climate conflicts. Further studies should also examine digital inequality, algorithmic visibility, activist security, misinformation, gendered participation, and the relationship between online campaigns and formal environmental decision-making. Longitudinal research would be particularly valuable for determining whether digital visibility produces durable organizational capacity or merely temporary waves of attention. Future scholarship should ultimately evaluate environmental digital democracy not by the number of people reached online but by whether digital communication strengthens the political agency of affected communities, improves institutional accountability, and contributes to more inclusive and ecologically sustainable forms of democratic governance.

References

- Ahmad Al H, M. M., and Hafri. 2023. "Pemanfaatan Media Sosial Instagram WALHI Bengkulu Sarana Kampanye Lingkungan." *Jurnal Sarjana Ilmu Komunikasi* 4 (2): 29–45. <https://doi.org/10.36085/jsikom.v4i2.5832>
- Fadli, Ajril, and Hasan Sazali. 2023. "Peran Media Sosial Instagram @GreenpeaceID sebagai Media Kampanye dalam Menjaga Lingkungan." *Jurnal Ilmu Komunikasi UHO* 8 (2). <https://doi.org/10.52423/jikuho.v8i2.32>
- Febriana, Ajeng Iva Dwi, and Srie Rosmilawati. 2024. "Mobilizing Green Narratives: The Role of Instagram Reels in Indonesian Youth Environmental Activism." *Communica: Journal of Communication* 2 (4): 271–285. <https://doi.org/10.61978/communica.v2i4.776>
- Großmann, Kristina. 2018. "Social Media and the Successful Anti-Mining Campaign in Bangka, Indonesia." *Journal of Contemporary Asia* 48 (5): 835–854. <https://doi.org/10.1080/00472336.2018.1432675>

- Habsari, Sri Kusumo, Fatkhu Rohmatin, and Istadiyantha Istadiyantha. 2021. "Digital Ethnography of Social Media: Srikandi Sungai Indonesia Activists in Water and River Conservation." *Masyarakat, Kebudayaan dan Politik* 34 (1): 37–50. <https://doi.org/10.20473/mkp.V34I12021.37-50>
- Hari, Cahyaratri Kinasih. 2023. "Kartini Kendeng's Resistance Movement for Environmental Preservation in the #KendengMelawan Movement on Social Media." *Humaniora* 14 (2). <https://doi.org/10.21512/humaniora.v14i2.8777>
- Hersinta, Hersinta, and Adithiyasanti Sofia. 2021. "Social Media, Youth and Environmental Low-Risk Activism: A Case Study of SaveSharks Indonesia Campaign on Twitter." *ASPIRATION Journal* 1 (2). <https://doi.org/10.56353/ASPIRATION.V1I2.11>
- Ismail, Ahmad, Hardiyanti Munsir, and Amril Hans. 2019. "Online Social Movement: Adopsi Teknologi Informasi dalam Melakukan Gerakan Sosial di Indonesia." *ETNOSIA: Jurnal Etnografi Indonesia* 4 (1): 91–114. <https://doi.org/10.31947/etnosia.v4i1.5039>
- Kapriani, Dea Rizki, and Djuara P. Lubis. 2015. "Effectiveness of Social Media for Social Movements of Environmental Conservation." *Sodality: Jurnal Sosiologi Pedesaan* 2 (3). <https://doi.org/10.22500/sodality.v2i3.9423>
- Karim, Iqbal Yusra, and Neni Yulianita. 2021. "Peran Instagram @greenarationid sebagai Media Kampanye Ramah Lingkungan." *Jurnal Riset Public Relations* 1 (2). <https://doi.org/10.29313/jrpr.v1i2.418>
- Kurniawan, Nanang Indra, and Stele Angen Rye. 2014. "Online Environmental Activism and Internet Use in the Indonesian Environmental Movement." *Information Development* 30 (3). <https://doi.org/10.1177/0266666913485260>
- Laoera, Bruce Dame. 2023. "Female Activists in Environmental Movements on Instagram: An Ecofeminism Perspective in the Indonesian Context." *Media–Culture–Social Communication* 19. <https://doi.org/10.31648/mkks.8477>
- Rahmadhani, Putri, and Ira Dwi Mayang Sari. 2022. "Pengaruh Media Sosial Twitter @Greenpeace.Id terhadap Sikap Peduli Lingkungan." *Professional: Jurnal Komunikasi dan Administrasi Publik* 9 (2): 633–646. <https://doi.org/10.37676/professional.v9i2.3321>
- Sanjaya, Andreas Ryan. 2018. "Wacana Lingkungan dalam Gerakan Sosial Digital." *Jurnal IPTEKKOM* 19 (2): 133–148. <https://doi.org/10.17933/iptekkom.19.2.2017.133-148>
- Sarjani, Dini Kumalawati. 2023. "Understanding Connective Action in the Wadas Village Conflict: Social Network Analysis on the #WadasSuing Hashtag." *PERSPEKTIF* 12 (4): 1300–1307. <https://doi.org/10.31289/perspektif.v12i4.9788>
- Shahreza, Mirza, and Abdul Basit. 2025. "WhatsApp and Green Activism: A Netnography of Mobilisation and Engagement." *Jurnal Studi Komunikasi* 9 (2): 359–370. <https://doi.org/10.25139/jsk.v9i2.10253>

- Susanto, Nurhadi, and M. H. Thamrin. 2021. "Environmental Activism and Cyber-Advocacy on Social Media: A Case Study from Indonesia." *JKAP: Jurnal Kebijakan dan Administrasi Publik*. <https://doi.org/10.22146/jkap.67713>
- Sutan, Arissy Jorgi. 2025. "Social Media Activism to Reject Andesite Mining, Case of 'Wadas Melawan' Movement." *Jurnal Sosiologi Dialektika* 20 (2): 158–172. <https://doi.org/10.20473/jsd.v20i2.2025.158-172>
- Ulfa, Ghina Shabrina, and Anna Fatchiya. 2019. "Efektivitas Instagram 'Earth Hour Bogor' sebagai Media Kampanye Lingkungan." *Jurnal Komunikasi Pembangunan* 16 (1): 144–157. <https://doi.org/10.46937/16201825129>
- Zainubi, Hilman Haikhal, and Suluh Gembyeng Ciptadi. 2024. "Environmental Activism Through Instagram: A Study of the Global Climate Strike Campaign by Greenpeace Indonesia." *International Journal of Environmental Communication* 2 (2): 68–78. <https://doi.org/10.35814/envicomm.v2i2.8029>

Acknowledgment

None

Funding Information

None

Conflicting Interest Statement

The authors state that there is no conflict of interest in the publication of this article.

Publishing Ethical and Originality Statement

All authors declared that this work is original and has never been published in any form and in any media, nor is it under consideration for publication in any journal, and all sources cited in this work refer to the basic standards of scientific citation.

Generative AI Statement

N/A