Digital Activism & Environmental Justice in West Bengal: The Role of Digital Storytelling in Amplifying Marginalized Voices
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Abstract

Environmental justice concerns are acute in West Bengal, where riverbank erosion, displacement due to mining, cyclone impacts, and urban pollution affect marginalized communities. In this paper, we examine how **digital storytelling**—through social media, blogs, local video, WhatsApp groups, etc.—is helping to amplify the voices of those most affected. Drawing on case studies from the Sundarbans, the Farakka Barrage region, Birbhum coal projects, and Kolkata's informal settlements, we analysed mechanisms, opportunities, challenges, and policy implications. We argue that digital storytelling in West Bengal is a vital tool for environmental justice, but its efficacy is mediated by access, literacy, narrative control, and institutional responsiveness.

Keywords: Digital Activism, Environmental Justice, Digital Storytelling, Marginalised Voices, West Bengal

Introduction

Environmental injustice refers not only to the unequal distribution of environmental harms but also to procedural inequities in who gets to speak, who is heard, and whose knowledge counts (Schlosberg, 2007). In West Bengal, many communities suffer from repeated flooding, riverbank erosion, mining displacement, and coastal/climate disruptions. These marginalized populations—often Dalits, Adivasis, small farmers, fishers, informal settlement dwellers—face not just environmental burdens but also silencing and exclusion from policy and media discourses.

Over recent years, digital technologies have penetrated even rural West Bengal. Smartphones, messaging apps, social media and low-cost video tools allow for new modes of expression and documentation. **Digital storytelling**—that is, narratives shaped and shared digitally by affected individuals or communities—offers a way to assert identity, register grievance, document harm, and mobilize solidarity. This paper investigates how digital storytelling functions in the context of environmental justice in West Bengal: how it amplifies marginalized voices, what impacts it achieves, what limits it faces, and what policy measures are needed to foster its effectiveness.

Conceptual Framework

Dimensions of Environmental Justice

We draw on three dimensions as in Schlosberg (2007):

- **Distributive justice**: who bears environmental harms (e.g. loss of land, pollution, erosion).

- **Procedural justice**: who is involved in decision-making, who has access to forums.

- **Recognitional justice**: whose identities, knowledge systems, and narratives are recognized as legitimate.

Digital Storytelling

Digital storytelling refers to narratives produced, mediated or shared via digital platforms (social media, video, audio, blogs, interactive maps, messaging apps). It includes self-representation, participatory methods where community members co-produce stories, and uses of local languages and cultural forms.

Digital Activism

Digital activism encompasses the use of these tools for raising awareness, advocacy, evidence gathering, collective mobilization, and demanding institutional change. It involves both content creation and dissemination, as well as engagement (comments, shares, digital petitions).

West Bengal Case Studies

Below are detailed case studies showing how digital storytelling is being used (or has potential) in West Bengal to amplify marginalized voices in environmental justice issues.

Case Study 1: Sundarbans – Cyclones, Salinization, and Youth Narratives

The Sundarbans region faces recurring environmental hazards: cyclones (such as Amphan, Yaas), storm surges, salinization of soil and water, erosion, and loss of mangrove cover. Marginalized communities—fishers, small farmers, women—are among the hardest hit.

After Super Cyclone Amphan in May 2020, a survey of residents across several districts of West Bengal revealed not just physical damage but significant disruption in communications, electricity, and internet services. An online survey (201 participants across five worst affected districts) found that many turned to social media platforms to share images, videos, and requests for help. Platforms like Facebook, Twitter, WhatsApp became tools both for documenting loss and for pushing for governmental responses. (arXiv)

Young people in local villages recorded videos of submerged roads, broken embankments, destroyed homes, posted in Bengali with English subtitles or translated captions, sometimes using hashtags like #Amphan, #BanglaStorm, #RebuildSundarbans. These digital stories did several things: they created visual evidence of infrastructural failure; they documented differential vulnerability (women suffering more because they lack mobility, for instance); they built awareness among urban populations and NGOs; and they pressured authorities to arrange relief more fairly.

Challenges: in many remote Sundarbans islands, internet connectivity is unreliable; many people lack phones or data; often external actors (NGOs or youth activists from outside) help record or publish content, raising questions of who controls the narrative.

Case Study 2: Farakka Barrage & Riverbank Erosion – Displacement Narratives, Land Loss

The Farakka Barrage, constructed in the 1960s and commissioned in 1975, has significantly affected river morphology, sediment deposition, riverbank erosion in districts such as Malda and Murshidabad (Rudra, 2010; "The encroaching Ganga and social conflicts," 2010) (India Water Portal). The left bank upstream of Farakka is heavily eroded; large swathes of farmland, villages, and infrastructure are repeatedly lost. For example, in the Manikchak block of Malda district, studies using satellite imagery and GIS have shown substantial loss of agricultural land, multi-crop lands, and human habitation. (techjournals.stmjournals.in)

Digital storytelling in the Farakka region has taken several forms:

- Local villagers upload videos and make short films using smartphones, documenting homes under threat, the process of displacement, and how floods or river meanders eat away at their lands.

- WhatsApp groups among displaced families and NGOs share before-/after imagery during erosion; photographs of submerged school, shifting river channels; testimonies of children missing schooling because schools get eroded or flooded.

- Bloggers and small regional media outlets publish photo essays and interviews in Bengali, describing displacement not just as a disaster, but as environmental injustice— i.e., warning that policy and protection measures have been insufficient, that state agencies sometimes respond only after damage is catastrophic.

These narratives have helped bring attention to erosion victims' pleas in state legislative forums. For instance, communities in China Bazaar and Sarkarpara (in Kaliachak III Block) have posted images and live reports when erosion becomes acute (e.g. villages being submerged), which draws coverage from local newspapers and sometimes TV. (Telegraph India)

Case Study 3: Birbhum Coal Projects (Deocha-Pachami / Mining Displacement) – Tribal Voices & Land Rights

In Birbhum district, particularly with the proposed Deocha-Pachami coal block (along with Dewanganj Harinsingha block), large tracts of land are earmarked for coal extraction. The project affects dozens of villages; estimates suggest 34 villages, with about 395 families (40% tribal) in certain areas are directly affected. (The Indian Express)

Local tribal communities have begun digitally recording their concerns:

- Filming and photographing land being identified for acquisition, gatherings where elders speak about loss of grazing, sacred groves, livelihoods.

- Using social media and regional media platforms to demand better compensation, insist on resettlement and rehabilitation before mining operations begin. For example, local press and tribal bodies have published statements and digital memos arguing that

compensation proposals (₹22,500/year or similar amounts) are inadequate. ([Land Conflict Watch](#))

- Activists have posted short videos in local dialects on YouTube or Facebook, showing maps of what land is being taken, interviews with displaced families, children speaking about school disruption, women about loss of water access, loss of forest produce.

- Also, online campaigns have called for transparency in feasibility reports (e.g., the role of NIRM in studying underground mining in the block) and for institutional oversight. ([Projects Today](#))

The digital stories help shift the narrative from "development vs environment" to "environmental justice"—emphasizing rights, culture, livelihood, and identity.

Case Study 4: Urban Environmental Justice in Kolkata – Waste, Pollution, Inequality

In Kolkata, especially in informal settlements or low-income neighborhoods adjacent to dumping grounds, landfills, or polluted rivers, environmental burdens are heavy. Residents often lack formal representation. Digital activism here is less documented in formal literature but visible in local blogs, social media pages, WhatsApp groups:

- Photographs and videos shared by residents of uncollected waste, open drains, flooding during monsoon, smoke pollution, etc. These often go viral in local networks and sometimes catch the attention of journalists.

- Youth from these neighborhoods sometimes coordinate via social media to undertake clean-ups, upload before/after images, hold discussions in local Facebook groups about municipal neglect.

- During severe air pollution episodes or flooding, local residents tweet, use Instagram stories or community WhatsApp groups to demand accountability.

Mechanisms Through Which Digital Storytelling Amplifies Voices

Based on these West Bengal case studies and existing literature, several mechanisms emerge.

1. **Narrative Counter-Discourse & Legitimization**

Affected communities disrupt official or dominant narratives (e.g., that erosion is "natural," that mining is necessary for energy or development) by sharing lived experience. Digital stories in Farakka or Birbhum expose local ecological knowledge, land rights, indigenous belief systems.

2. **Visual & Affective Power**

Video, photos, audio testimonials engage emotion. For example, visuals of submerged homes in the Sundarbans, crying mothers, fields turning saline are more impactful than statistical reports. Such affective content helps mobilize empathy, media coverage, and sometimes policy attention.

3. **Local and Vernacular Voices**

Use of Bengali or local tribal dialects, inclusion of community elders, women, children helps make stories more authentic and grounded. It also helps reach those who may not be fluent in English or mainstream media languages.

4. **Social Media & Messaging Platforms**

Platforms like Facebook, WhatsApp, YouTube allow both private and public sharing. WhatsApp groups serve as grounds for immediate sharing among community members; Facebook pages or YouTube can reach wider audiences.

5. **Hashtags, Campaigns, Online Petitions**

Calls to action—petitioning government offices, demanding relief, compensation—often used digitally. These are sometimes backed by narratives of suffering, displacement, loss, which makes them more compelling.

6. **Hybrid Mobilization**

Digital stories sometimes enable offline action: relief efforts, protests, legal demands, governmental attention, media coverage. For instance, stories of erosion victims in Malda have prompted district-level interventions or warnings to authorities. (Telegraph India)

Impacts

From examining these cases, several impacts (some more measurable than others) can be identified:

- **Increased visibility and awareness**: Local issues gain attention in urban centers, regional media, sometimes national or international NGOs.

- **Empowerment and identity recognition**: Marginalized people see their stories publicly shared; sense of agency increases.

- **Policy responsiveness**: In some instances, state authorities have made promises (e.g. in Birbhum, that displacement will be addressed before mining begins; in Farakka region, joint surveys or expanded jurisdiction for erosion authority) that seem to be responses to public pressure. (The Indian Express)

- **Mobilization and collective organizing**: Digital stories help communities coordinate, share information rapidly (e.g. when erosion is sudden), mobilize relief, coordinate with civil society organizations.

- **Evidence base for claims**: Photographs, GIS maps, video testimonies become part of documentation used in public hearings, media reports, legal or administrative demands. For example, GIS studies of erosion upstream of Farakka help quantify the land lost, which local activists then reference in demands. (techjournals.stmjournals.in)

Opportunities and Challenges in West Bengal

Opportunities

- **Growing cellular and internet penetration** even in rural districts and islands (though unevenly distributed). This reduces barriers to participation.

- **Lower cost of media tools**: Smartphones, cheap data, social media apps make it easier for local residents to record and share content.

- **Local NGO, youth and student activism**: Many youths, community groups, NGOs are increasingly tech-aware and willing to assist in producing and sharing stories.

- **Public & media interest**: Urban publics tend to be responsive when erosion or mining displacement stories reach them, especially when visuals are involved.

Challenges

- **Digital divide**: Many in remote or small island areas (e.g. Sundarbans) lack stable internet, electricity, or even devices; women are often less likely than men to have personal smartphone or data access.

- **Literacy and digital literacy**: Even if devices/data are available, not everyone has skills to record, edit, upload, or use social media; local dialects may not be supported on platforms.

- **Narrative control and external mediation**: Often, external activists or NGOs assist with recording, editing, or sharing stories, which can result in loss of control over framing, or suppression of sensitive content.

- **Institutional inertia and political obstacles**: Even when stories go viral, institutional response may be slow, promises may be unfulfilled, or compensation and resettlement may be inadequate or delayed. For example, in Birbhum, although there are assurances to resettle displaced families, critiques remain about transparency and adequacy. ([The Indian Express](#))

- **Ephemeral visibility and sustainability**: Many stories generate initial attention but then fade; sustaining engagement or converting awareness to long-term policy change is difficult.

- **Risk for participants**: Speaking out may expose vulnerable people to retaliation, marginalization, or state neglect.

Quantitative Dimensions & Environmental Data from West Bengal

Some studies provide empirical data helping to situate the scale of environmental harms, which digital stories often reference.

- In Malda upstream of Farakka, a GIS study quantified land lost due to riverbank erosion from 1973 to 2017. The Manikchak block showed the maximum number of mouzas (administrative units) engulfed. Losses included human habitats, multi-crop agricultural land, and vegetable farms. ([techjournals.stmjournals.in](#))

- Bhagirathi-Hugli estuary downstream of Farakka exhibits bank erosion of approximately **8 km² per year on average** in parts, and over 32 years, some 245 km² has been eroded while only about 105 km² has been accreted. Islands such as Ghoramara have shrunk or vanished. (MDPI)

- In Birbhum, estimates around displacement: about 34 villages affected by proposed mining; ~395 families in certain areas to be relocated; ~40% tribal population in these families. (The Indian Express)

- In the Barjora colliery area (Bankura district), open-cast coal mining has changed rural livelihoods. Pre-mining, ~62% of people participated in agriculture; post-mining, that dropped dramatically, with many shifting into mining or wage labour. (spaceandculture.in)

Discussion

Intersectionality and Recognitional Justice

Environmental burdens in West Bengal are unevenly distributed not just by geography, but by caste, tribe, gender, and age. Women in Sundarbans, tribal families in Birbhum, landless farmers and fisherfolk bear disproportionate harms, both physically and in their capacity to tell their stories. Recognitional justice means seeing these identities and experiences as central. Digital storytelling allows for voices that are often invisible in mainstream media or policy arenas.

Power, Narrative Ownership, and Control

Who is producing digital stories matters. When NGOs or journalists control recording and storytelling, there is risk of misrepresentation. Ensuring that community members are authors of their own stories—choosing what to show, how to frame, how to distribute—is essential.

The Role of Platforms and Accessibility

Platforms have both opportunity and risk: algorithms may suppress certain content; content moderation policies may delete sensitive content; visibility may depend on follower count or network effects beyond the immediate community. Also, language and format barriers (for example, local dialects, low literacy) constrain participation.

Linking Digital Storytelling to Institutional Change

Stories achieve more if they are tied to policy advocacy, legal frameworks, relief, resettlement, or environmental regulation. For example, in Birbhum, communities demand not just acknowledgment, but concrete compensation, resettlement, employment guarantees. In the Farakka region, expanding the jurisdiction of the Farakka Barrage Project Authority was one policy demand that digital stories helped bring forward. (MillenniumPost)

Sustainability and Longitudinal Impact

Many digital activism efforts are successful in the short term but face decay in attention and resources. Sustaining momentum requires networks, funding, institutional partnerships, and local capacity building.

Implications for Policy, Practice, and Research

Based on these findings, several implications are evident:

1. **Bridging Digital Access Gaps**

   o Expand internet infrastructure (broadband / mobile data) especially in rural Sundarbans, remote riverbank villages, tribal areas.

   o Provide subsidized access to devices, or communal media centres, especially for women and marginalized groups.

2. **Digital Literacy and Storytelling Skills**

   o Training programs in recording, editing, ethical sharing; workshops in local languages/dialects.

   o Support for local storytelling forms (oral histories, folk songs, local art) adapted to digital media.

3. **Ethical Guidelines and Narrative Ownership**

   o Ensure informed consent, safe sharing of identities when needed; avoid extractive modes of storytelling.

   o Community control over how stories are used, framed, shared.

4. **Institutional Transparency and Responsiveness**

   o Governments and project authorities (e.g., mining agencies, river management bodies) should incorporate community digital stories into planning and decision making.

   o Mechanisms for grievance redressal where environmental harm is documented digitally.

5. **Platform Support and Regulation**

   o Encourage social media platforms to support regional languages/dialects, reduce barriers to access.

   o Transparency in how content gets visibility; protections for content dealing with environmental justice.

6. **Longitudinal and Impactful Research**

   o Academic & policy research should track how digital stories translate (if they do) into concrete outcomes: relief, compensation, environmental protection, legal decisions.

7. **Integrative Action**

Pair digital activism with on-ground organizing, legal action, policy advocacy. Digital stories can open doors, but lasting change often requires physical presence and mobilization.

Political Strategists and the Appropriation of Digital Storytelling

Digital storytelling has not only emerged as a grassroots tool of resistance but also as a **strategic instrument in electoral politics**. In West Bengal, political strategists have increasingly recognized the affective and mobilizing potential of community-based narratives around environmental justice. By leveraging digital storytelling, strategists construct persuasive political campaigns that connect **environmental grievances to identity, belonging, and justice**.

Storytelling as Political Communication

Political communication in West Bengal has historically relied on **rallies, posters, and print media** (Banerjee, 2018). However, with the rise of smartphones and social media penetration, strategists now utilize **short videos, digital testimonials, and online campaigns** to engage marginalized groups. Environmental issues—once considered "secondary" to electoral politics—are increasingly woven into campaign narratives.

For instance, during state elections, stories from the **Sundarbans**—women rebuilding homes after Cyclone Amphan—were amplified by party-affiliated digital cells. These were framed to showcase both government relief efforts and opposition criticisms, demonstrating how environmental suffering could be politicized through narrative framing (Chakrabarti, 2021).

Strategic Amplification of Marginalized Voices

Political strategists often employ **three key methods**:

1. **Localized Storytelling**: Strategists recruit digital influencers from villages or districts to narrate their lived experiences. For example, in Murshidabad and Birbhum, testimonies of farmers losing land to erosion or mining were circulated via WhatsApp groups aligned with specific parties.

2. **Symbolic Representation**: Environmental struggles are reframed as symbols of **broader neglect or injustice**. Farakka's erosion stories, for instance, are used to portray ruling governments as indifferent to rural suffering, thereby mobilizing sympathy and political resentment (Mukherjee, 2020).

3. **Integration with Identity Politics**: In Birbhum, Adivasi digital storytellers' protests against coal mining have been strategically amplified by opposition parties to align environmental justice with **Indigenous identity and land rights**. This blending of environment, culture, and politics strengthens electoral messaging.

Risks of Politicization

While political amplification can bring visibility, it also raises ethical and strategic concerns. Communities' authentic digital stories may be **appropriated** or selectively framed to serve electoral agendas rather than genuine justice. Strategists may highlight certain narratives (e.g., displacement) while downplaying others (e.g., ecological conservation) depending on electoral calculus.

Moreover, algorithmic targeting—through Facebook ads, YouTube promotions, or WhatsApp forwards—ensures that these narratives are **selectively delivered to constituencies** most likely to be influenced. This instrumentalization risks reducing community voices to campaign "content" rather than empowering them as agents of change (Roy, 2022).

Case Examples

- **Cyclone Amphan Relief Stories (2020–21):** Political strategists crafted competing narratives on digital platforms: the ruling party highlighted its relief packages, while opposition circulated digital testimonies of villagers claiming exclusion from aid. Both relied on community storytelling but reframed it for partisan advantage (Chakrabarti, 2021).

- **Deocha-Pachami Coal Block Resistance (2022–23):** Strategists connected Indigenous digital protest videos to electoral campaigns by framing them as symbols of resistance against extractive, "anti-people" policies. Social media teams translated Adivasi songs into Bengali/English subtitles for wider circulation.

- **Farakka Erosion Narratives:** Strategists in Murshidabad shared videos of eroded farmland to critique state inaction. WhatsApp storytelling became a crucial means of connecting rural environmental distress to electoral promises (Mukherjee, 2020).

Strategic Lessons

1. **Digital storytelling creates emotional resonance** that data-driven campaigning alone cannot achieve.

2. **Marginalized voices gain visibility**, but often mediated through party filters.

3. **Grassroots storytelling merges with top-down political communication**, blurring lines between activism and electoral strategy.

4. **Ethical responsibility is often lacking**, as strategists prioritize political gain over long-term empowerment of communities.

Conclusion

In West Bengal, digital storytelling is emerging as a powerful medium in environmental justice. It gives marginalized individuals and communities tools to document harm, narrate their own

experiences, and demand recognition and accountability. From Sundarbans' climate vulnerabilities, the erosion and displacement along the banks of the Ganga near Farakka, to mining proposals in Birbhum and urban pollution in Kolkata, stories told via video, social media, WhatsApp and blogs are helping to shift policy debates and public attention.

However, digital storytelling alone is not a panacea. Its effectiveness depends on access, literacy, narrative control, institutional follow-through, and sustained engagement. If policymakers, NGOs, platform companies, and communities collaborate to address these enabling and constraining conditions, digital activism can become a central instrument of environmental justice in West Bengal.

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