



Research article

Communication for Disaster Risk Reduction in Bangladesh: A Review of NGOs and Media Interventions

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ABSTRACT

Effective communication is crucial for reducing vulnerability and enhancing community resilience to natural disasters. This is especially significant in nations that are very vulnerable to disasters, including cyclones, floods, riverbank erosion, and storm surges, notably Bangladesh. The current research provides a secondary review of the contributions of non-governmental organizations (NGOs) and media to disaster risk reduction (DRR) by way of awareness raising, early warning communication, community involvement, and advocacy activities. The results indicate that NGOs engage in shaping public policies, advocating for social issues, and influencing governance at local, national, and international levels. NGOs contribute to community awareness and education through community-based disaster risk reduction. Additionally, NGOs focus on capacity building, training, and fostering community networks. Moreover, media (mass media, social media, and small media) play vital roles in DRR by disseminating information, educating the public, issuing early warnings, promoting public engagement, and attracting donor interest for relief and recovery efforts. Diverse media formats serve distinct target groups with different ways. The project-oriented programs pose considerable challenges for both local and international NGOs as they strive to contribute to DRR.

ARTICLE INFO

Article timeline:

Date of Submission:
03 December, 2025

Date of Acceptance:
10 February, 2026

Article available online:
17 February, 2026

Keywords:

Communication
Media
Disaster Risk Reduction
NGOs
Bangladesh

Introduction

Natural disasters, such as cyclones, earthquakes, floods, hurricanes, tsunamis, droughts, and volcanic eruptions, stand unpredictable events that disrupt normal activities in society, often consequential in massive sufferers and extensive damage to property and the environment. There is an increasing apprehension that the frequency of natural disasters endangering human existence would persist in escalating. Significant disasters result in the deaths and injuries of thousands annually, erasing billions of dollars in GDP (Shah, et al., 2023). Natural disasters continue to inflict large human and economic costs worldwide, and recent years have been among the costliest on record. In 2024, the Emergency Events Database (EM-DAT) recorded 393 natural disasters, involving in about 16,753 deaths, affected 167.2 million people, as well as produced US\$242 billion in direct financial damages highlighting both the frequency and economic scale of contemporary

disasters. These patterns reflect growing exposure and vulnerability in many regions, as well as the amplifying impact of climate change happening life-threatening weather and temperature events (CRED/EM-DAT, 2025). Natural disasters present substantial challenges to human societies, and their patterns of incidence and intensity have evolved markedly throughout time. Disasters predominantly transpire in low-income nations (Noy & Yonson, 2018). According to the global disaster risk rankings for 2024, certain countries such as the Indonesia, Philippines, Colombia, India, Mexico, Pakistan and Myanmar are significantly more vulnerable due to their exposure to hazards like floods, cyclones, earthquakes, and droughts. Bangladesh, in particular, holds the ninth position worldwide for disaster vulnerability, underscoring its frequent and severe susceptibility to natural disasters (Business Standard, 2024).

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DOI: <https://doi.org/10.53808/KUS.2026.23.01.1539-ss>

Table 1: Top Ten Countries with the Most Disaster Risk 2024

Ranking	Country	World Risk Index
1	Philippines	46.91
2	Indonesia	41.13
3	India	40.6
4	Colombia	37.81
5	Mexico	35.93
6	Myanmar	35.85
7	Mozambique	34.44
8	Russian Federation	28.12
9	Bangladesh	27.73
10	Pakistan	27.02

Source: Statista. (2024).

The Climate Risk Index 2025 report indicates that Bangladesh suffers over US\$ 3 billion in disaster-related damages yearly, affecting over 6.3 million individuals each year (Germanwatch, 2025). In 2024, Cyclone Remal caused damages estimated at US\$ 600 million (approximately BDT 6,880 crore) across 20 coastal districts, resulting in the destruction or damage of more than 173,000 houses and the inundation of extensive areas of cropland, fish farms, and water infrastructure (UN, 2024). Moreover, intense monsoon floods in the eastern region caused damages amounting to at least BDT 14,421.46 crore, affecting vital sectors including agriculture, infrastructure, and housing (UNDDR, 2025; World Bank and GRADE, 2025). In addition to cyclones and floods, Bangladesh often faces other natural disasters, including riverbank erosion, salinity intrusion, droughts, and earthquakes. These events result in long-term losses.

Although disasters cannot be prevented, their consequences can be mitigated utilizing risk reduction techniques (Dimitrova, & Snair, 2024). The repeated disasters underscore the critical necessity to enhance DRR and climate adaption methods in globally. In this case, media and NGOs undertake essential and interrelated responsibilities in DRR through effective communication (UNDRR, 2019). A vital approach for addressing a particular disaster is to increase awareness among diverse stakeholders. NGOs frequently serve as the initial responders during a disaster and continue in their efforts inside the community long after the majority of international NGOs have left. Moreover, NGOs have significantly contributed to disaster mitigation and preparedness by providing money, disaster management experience, and aiding households in enhancing their financial resilience for the advancement of vulnerable communities ((Islam & Morgan 2012; Seddiky, 2025).

Apart from NGOs, both media and non-media channels significantly contribute to disaster preparedness among people overall. Social media, television, radio, printed newspapers, internet newspapers, and interpersonal sources such as family, neighbours, friends, co-workers, local authorities and government, are working on DRR (Ali, 2023). In addition, small media including leaflets, poster, mock drill and folk contribute positively to DRR (Zobel et al., 2019; Ferrer et al., 2021; Manandhar et al., 2025). In addition, enhancing public awareness is widely acknowledged as fundamental to mitigating

disaster risk (Ali, 2023). In light of this, the primary objective of the current research is to investigate the role of NGOs, media, and communication in DRR, specifically in Bangladesh, through a review of research-based journal articles and book chapters concerning these entities in various countries, including Bangladesh.

Conceptual understanding: NGOs, Disaster Risk Reduction (DRR), Media and Communication

NGOs

NGOs refer to voluntary organizations, private non-profit groups, or organizations that are not for profit. Defining NGOs is challenging due to the diverse interpretations provided by various researchers and fields. Furthermore, the term doesn't relate to descriptive or systematic accuracy; rather, it is grounded in social or historical perspectives regarding the emergence of NGOs (Lewis, 2010). In the public's viewpoint, NGOs often represent all non-profit organizations dedicated to the common good (Lassa, 2018). It endeavours to enhance financial and social conditions by implementing community-based initiatives at the regional level and facilitating professional development initiatives at the national level (Seddiky, et al., 2020). NGOs are involved in diverse community activities aimed at increasing awareness, delivering education and training, mitigating poverty, fostering partnerships, and utilizing local resources. Consequently, they enhance the community's ability to address unforeseen issues (Seddiky, et al., 2022). Several NGOs have redirected their efforts to vigorously advocate for enhanced climate awareness and improved risk management to bolster community reaction and strengthen the capacities of both organizations and the community (Mishra, et al., 2019)

Disaster Risk Reduction (DRR)

DRR is an approach that focuses on identifying future disaster risks, mitigating current susceptibilities, and fostering resilience. It is a systematic process aimed at explaining and addressing the significant aspects of disasters, such as minimizing exposure to threats, effective management of the physical and environmental areas, reducing the vulnerability of resources and individuals, and enhancing response efforts. It includes mitigation, preparedness, and prevention techniques, all grounded in information-based forecasts (Forino et al., 2015). DRR focuses mostly on several kinds of initiatives and approaches aimed at mitigating ultimate risks and improving preparedness beforehand for disasters. The interventions consist of three essential components: prevention (to avoid the happening of incidents); mitigation (to reduce the effects of disasters on both human and physical sectors); and preparedness (to implement suitable actions for the period of emergencies) (Morrison et al, 2018 cited in Seddiky et al., 2020). NGO (Mojtahedi & Oo, 2017; Seddiky et al., 2020), media and communication (Ali, 2023; Manandhar et al., 2025; Dufty, 2015; Shaw et al., 2021; Sarma, 2021) are actively involved in DRR through these initiatives.

Media and Communication

Media indicates the diverse means, tools, or channels (including television, radio, newspapers, and the Internet) utilized to preserve, convey, and deliver information or messages to audiences (McQuail, 2010). Media covers mainstream forms such as newspapers, radio, and television, in addition to digital platforms including social media, internet, and online news portals (Ogidi & Anthony, 2016). Furthermore, small media refers to informal, non-professional communication channels, such as banners, pamphlets, posters, wall murals, audio records, video tapes, community theatre, and interpersonal networks, which distribute information without governmental or corporate media regulation. (Kousari, 2013; Hamilton, 2000). Folk media, including street theatre, folk songs, and music, constitutes a segment of minor media (Barman et al., 2023). The media establishes a straight connection between the community and emergency agencies, playing a crucial role in delivering essential information to the general public prior to, during, and afterwards disasters (Sarma, 2021). Various media provide to various target audiences. The mainstream media addresses all age demographics, new media, particularly social media, is predominantly preferred by younger generations (Shaw et al., 2021).

Materials and Methods

This study seeks to identify the contributions of NGOs, media, and communication in DRR initiatives from a global

perspective, with a particular focus on Bangladesh. It is based on a narrative comprehensive analysis of literature worldwide that addresses the involvement of NGOs, media, and communication in guiding DRR efforts. Electronic databases such as Google Scholar, ScienceDirect, and ResearchGate served as the data sources. The researcher mostly undertook an online peer-reviewed articles and book chapters. Relevant literature was identified utilizing keyword-based searches employing keywords such as "disaster risk reduction communication," "NGO interventions in DRR," "media and disasters," and "Bangladesh." The search encompassed multiple databases to ensure contextual depth. Studies were chosen for their pertinence to communication strategies, message dissemination, and community involvement in disaster risk reduction, rather than through strict inclusion or exclusion criteria, aligning with the exploratory essence of a narrative review. In addition, this study generated an outline for resources utilizing exclusively materials published between 2010 and 2025. Researchers identified two book chapters and 28 journal papers have been reviewed purposively and their findings are analysed. The articles focus on NGOs, media, and communication related to DRR. Furthermore, they cover various types of disasters and employ both qualitative and quantitative research approaches across different countries. After reviewing the articles and book chapters listed below, the analysis of the contributions made by NGOs, media, and communication toward DRR is presented in the findings section.

Table 2: Summary of documents analysed in the review

Sl. No.	Name of the Author	Year	Geographical Location	Name of the Study	Focus of the Study
1	Manandhar et al.	2025	USA	“Emergency risk communication: Implication from the 2019 Arkansan River flood.”	Explore communication activities of regional emergency management (EM) institution during the 2019 Arkansas River floods
2	Heinkel et al.	2025	Myanmar	“Institutional risk and crisis communication on natural hazards and disaster risks in Yangon, Myanmar.”	Enhancing citizens' resilience by enhancing their capacity to predict, prevent, absorb, and transform disastrous threats.
3	Zhuo et al.	2024	China	“The effectiveness of a disaster preparedness educational intervention for wheelchair users: A pilot study.”	Disaster readiness education for wheelchair users and increase their self-management capacity throughout emergencies.
4	Amri et al.	2024	Yogyakarta Indonesia	“Tsunami risk awareness, hazard warning knowledge, and intended evacuation behavior among beach users in Bantul, Indonesia.”	Evaluated the Knowledge, Attitude and Practices during Tsunami among beach users.
5	Zulfa et al.	2024	Indonesia	“Factors affecting household evacuation decision making in response to disaster: Case study from the 2021 South Kalimantan floods, Indonesia.”	Finding factors of evacuation decision making in flood.
6	Jenkins et al.	2022	USA	“Considerations for creating equitable and inclusive	Earthquake early warning system with

				communication campaigns associated with Shake Alert, the earthquake early warning system for the West Coast of the USA.”	communication campaigns.
7	Ji et al.	2022	USA	“Community factors and local governments’ hazard mitigation efforts: Focusing on non-profit organizations.”	The essential role of non-profit organizations (NPOs) in dealing with disasters.
8	Bhandari & Takahashi	2022	Japan	“Knowledge, attitude, practice and perceived barriers of natural disaster preparedness among Nepalese immigrants residing in Japan.”	Analyse the assumed understanding, attitudes, and practices of Nepalese immigrants concerning preparedness for disasters.
9	Sultan and Maharjan	2022	Bangladesh	“Cyclone-Induced Disaster Loss Reduction by Social Media: A Case Study on Cyclone Amphan in Koyra Upazila, Khulna District, Bangladesh.”	Evaluate the social media usage in reducing domestic disaster loss by locating warning and readiness information
10	Seddiky et al.	2022	Bangladesh	“Impact of Non-DRR NGOs’ interventions for community-based DRR mainstreaming in Bangladesh.”	Assess the role of Non Disaster Risk Reduction (DRR) interventions in mainstreaming community-based DRR.
11	Seddiky et al.	2021	Bangladesh	“Non-DRR NGOs coping strategies for livelihood development in the coastal communities of Bangladesh: a Case Study.”	Non-DRR NGOs’ programs focusing the quality of life of populations impacted by disasters.
12	Khumairoh et al.	2021	Indonesia	“The role of communication as the disaster risk reduction in Indonesia capital city transference policy.”	DRR through the effective communication.
13	Ahsan and Khatun	2020	Bangladesh	“Fostering disaster preparedness through community radio in cyclone-prone coastal Bangladesh.”	People’s readiness for natural disasters through community radio.
14	AlQahtany and Abubakar	2020	Saudi Arabia	“Public perception and attitudes to disaster risks in a coastal metropolis of Saudi Arabia.”	Explores public awareness as well as attitudes to disaster risks.
15	Alam et al.	2020	Bangladesh	“The aftermath of natural disaster in Bangladesh and a proposal to minimise casualty.”	The frequency and impact of natural disasters, and to implement suitable solutions for vulnerable populations.
16	Kim and Madison	2020	Southern Louisiana, United States	“Public Risk Perception Attitude and Information-Seeking Efficacy on Floods: A Formative Study for Disaster Preparation Campaigns and Policies.”	Developing effective flood mitigation and risk management efforts.
17	Lakoro et al.	2020	Bandung, Indonesian	“Design of DRR Awareness Campaign Media by Revitalization of Sundanese Oral Culture.”	DRR Awareness Campaign Design by Utilizing Local Culture with Media.
18	Mavrodieva et al.	2019	UK, USA, Australia, Canada,	“Role of Social Media as a Soft Power Tool in Raising Public	Public Awareness in Climate Change through social media

			and few European countries	Awareness and Engagement in Addressing Climate Change.”	
19	Fakhruddin et al.	2015	Bangladesh	“Community responses to flood early warning system: Case study in Kaijuri Union, Bangladesh.”	Covers a complete system for medium-range flood forecasting targeted for agricultural users.
20	Maidl and Buchecker	2015	Zurich, Switzerland	“Raising risk preparedness by flood risk communication.”	The communication campaigns were working but behavior sometimes unchanged.
21	Khan and Ali	2015	Pakistan	“NGOs and Disaster Risk Reduction in Pakistan.”	The responsibilities of NGOs in encouragement, policy, management and DRR.
22	Islam and Walkerden	2015	Bangladesh	“How do links between households and NGOs promote disaster resilience and recovery?: A case study of linking social networks on the Bangladeshi coast.”	The function of NGOs post-disasters.
23	Susmayadi et al.	2014	Yogyakarta, Indonesia	Sustainable Disaster Risk Reduction through Effective Risk Communication Media in Parangtritis Tourism Area, Yogyakarta	The development of effective risk communication media for local and tourist residence specially.
24	Glik et al.	2014	Los Angeles County, California, United States	“Using the Precaution Adoption Process model to describe a disaster preparedness intervention among low-income Latinos.”	To learn about disasters and disaster preparedness and create a disaster communication plan for households.
25	Mahdavi azad and Abdolahifar	2014	Shiraz, Iran	“Assessing Household Natural Disaster Preparedness in Shiraz, Iran, 2011: Results of a Knowledge, Attitude, and Practices Survey.”	To evaluate the understanding, beliefs, and practices of households concerning disasters.
26	Hassan and Islam	2014	Bangladesh	“Role of Print media in Disaster Management in Bangladesh: An Evaluation in the light of cyclone Alia.”	The Print Media and Disaster Management
27	Izumi and Shaw	2012	Vietnam, Indonesia, Cambodia, India	“Role of NGOs in Community Based Disaster Risk Reduction.”	The CBDRR initiatives to build resilient in DRR efforts
28	Raj et al.	2010	Bangladesh	“From dissemination to response: in search of new strategies for broadcast media in terms of cyclone Warnings for Bangladesh.”	Investigative the cyclonic warning spreading system and addresses citizen responses to mediated warning messages
29	Okaka	2010	Uganda	“Developing Regional Communications Campaigns Strategy for Environment and Natural Resources Management Policy Awareness for the East African Community.”	Highlight the major conservation issues and challenges and elucidate the necessity for effective public communications campaigns approach
30	Parvin et al.	2010	Bangladesh	“Community Based Coastal Zone Management in Bangladesh.”	Disaster Preparedness Mechanism with Community Participation

Source: Prepared by the researchers, 2025

Findings

This study has established a connection among NGOs, media, and communication concerning DRR after analyzing the selected articles and book chapters. The articles address a range of issues. Among these, the present study has thematically addressed several initiatives that contribute to DRR approaches on a global scale, including in Bangladesh.

Involvement of NGOs in DRR

The role of NGOs in DRR communication is generally acknowledged to be a necessity, especially in hazard-exposed and resource-poor environments. NGOs act as intermediaries between official institutions and at-risk communities by translating technical risk information into messages relevant to the community and using culturally sensitive communication formats. This procedure includes the facilitation of awareness raising and preparedness through community meetings, participatory training, local mass media material, and interpersonal communication that NGOs conduct for vulnerable groups. They have this long-term, ground-level presence, which helps them to build trust and mobilize local knowledge in both cases, making it easier to encourage behavioral change around early warning response measures, evacuation, and resilient livelihoods. Closer to home, research repeatedly indicates that the NGO model of DRR communication increases community participation, enhances risk perception, and contributes toward official disaster management systems, particularly in settings where formal lines of communication are weak ((UNDRR, 2019; Shaw & Izumi, 2014; Rahman, 2019). Generally, the following significant areas of engagement have been highlighted as those in which NGOs demonstrate an increased level of involvement:

Policy & Advocacy

Policy and advocacy are central to the role of NGOs in communicating about DRR. They serve to link community-level realities of risk with decision-making processes at both national and local levels. Organizations use information from their fieldwork, community discussions, and evaluations after disasters to help create fair DRR policies, plan for development that considers risks, and ensure that early warning and preparedness messages are included in public systems. Through policy briefs, stakeholder dialogues, media, and coalition-building activities, NGOs are helping to raise the voices of vulnerable groups to demand accountability in disaster governance. Their advocacy work also shapes the budgetary allocation, institutional coordination, and adoption of people-focused communication between DRR frameworks. Empirically, a literature demonstrates that persistent advocacy of NGOs increases the participatory nature of policy processes and enhances the ability to respond to local needs in communication policies for DRR, especially in developing countries (Shaw & Izumi, 2014; UNDRR, 2019; Ahmed et al., 2021).

Community Awareness and Education

NGO engagement utilizes various participatory and interpersonal approaches to improve disaster awareness within communities. Their initiatives focus on educating

people about potential risks, identifying early warning signs, and promoting protective actions. NGOs also highlight educational initiatives that foster enduring resilience via both formal and informal education. They collaborate with educational institutions to integrate DRR education into curricula and provide training for educators and students. NGOs are also instructing local leaders, volunteers, and youth groups to serve as disaster risk reduction facilitators (Parvin et al., 2010; Seddiky et al., 2021; Ji et al., 2022).

NGO in Community Based DRR

Community-based disaster risk reduction (CBDRR) is an inclusive procedure in which communities are engaged in recognising, assessing, mitigating, and design across various threats and susceptibilities. Communities provide an essential to the initiative (Seddiky et al., 2020). NGOs have taken on the CBDRR strategy as an accepted approach for developing communities with resilience DRR initiatives. The strategy was first executed in developing nations by NGOs, thereafter adopted by global organizations such as the International Federation of Red Cross and Red Crescent Societies. This strategy is progressively advocated by local governments to enhance the connections between the formal disaster management framework and grassroots organizations (Shaw & Krishnamurthy, 2009; Izumi & Shaw, 2012). The advantages and rationale for fostering community participation and engagement extend beyond the inclusion of local knowledge and the mitigation of underlying vulnerabilities; they also encompass the sustainability of community-level activities aimed at disaster reduction. External groups, including governmental bodies and NGOs, frequently begin and execute community-level activities prior to and during disasters. The absence of external support frequently results in the termination of such efforts. The lack of sustainability may stem from various factors, including insufficient engagement, participation, empowerment, and ownership among local populations. Without sustainable DRR at both individual and community levels, mitigating vulnerability and losses will be challenging. It is essential to include individuals in the decision-making processes on policies and strategies for community development (Izumi & Shaw, 2012; Ji, et al., 2022).

The CBDRR strategy allows communities to utilize local experience while engaging with other organizations including national and international NGOs, governments, and private sectors. One significant feature of NGOs is how close they are to communities, which enables them to fully understand of cultural diversity and acknowledges the necessity of a community-oriented approach (Izumi & Shaw, 2012).

Disaster preparedness for Coastal Community

In alongside government initiatives, other NGOs are active in coastal regions. In Bangladesh, NGOs are seen as an essential organization for community-based disaster risk reduction and climate change adaptation, alongside the national government, due to their significant contributions to poverty alleviation and the advancement of rural and urban populations. NGOs serve as the best alternative to governmental entities in delivering superior services for

both pre- and post-coastal disaster management, facilitated by active community involvement. In partnership with government initiatives, local, national, and international NGOs have developed several cyclone preparedness programs that encompass community awareness as a pre-disaster preparedness strategy and the establishment of cyclone centres. The NGOs are the principal institutions that can provide active public engagement in the disaster preparedness program (Parvin et al., 2010).

Capacity Building and Training

NGOs can build their capacity in DRR through training programs focused on risk assessment, emergency response, community engagement, and integrating climate change adaptation. Key organizations like UNDRR, UNDP and UNTAR offer training, tools, and resources for both individual and organizational capacity development in DRR, ensuring that NGOs have the required expertise and knowledge to reduce disaster impacts and enhance community resilience. Collaboration between the UNDRR and NGOs is essential for effective DRR. NGOs often serve as the bridge between communities and larger institutional frameworks, providing localized knowledge and expertise that can inform broader strategies. By partnering with NGOs, the UNDRR can leverage their grassroots connections to enhance community engagement in disaster risk management. This partnership facilitates a more refined understanding of local weaknesses and capacities, ensuring that DRR initiatives to reduce disaster risks are customized to address the distinct requirements of impacted communities. One notable example of successful collaboration is the partnership between UNDRR and various NGOs during the execution of community-oriented DRR programs. These initiatives have empowered local communities to identify their own risks and develop tailored action plans. NGOs have played a crucial role in facilitating workshops, training sessions, and simulations that engage community members in hands-on learning experiences. This participative technique enhances local capability and cultivates a sense of ownership among community members, which is vital for the sustainability of DRR efforts (Seddiky et al., 2020; Mojtahedi, & Oo, 2017; Oxfam, 2014; ADPC, 2010).

Promoting community networks

NGOs take established a robust linkage capacity inside the beneficiary households through weekly meetings, group discussions and training sessions. In DRR, networking must establish connections among all stakeholders: individuals, communities, local administration organizations, NGOs, and different organizations from both private and public sectors. They made use of collective capital to enhance the society's ability for relief, information dissemination, resource access, collaboration with government, and engagement with regional and national organizations in a collaborative effort towards DRR. With the assistance of NGOs, community members recognised networks with other regional organizations and communities, including mosques, churches, and village clubs, that may possibly aid upcoming disasters. NGOs have established local media networks to enhance disaster awareness and disseminate the need for speed of

relief efforts for those affected (Seddiky, Giggins & Gajendran, 2022; Joshi et al., 2020; Boonreang, 2015).

How Media and Communication contribute to DRR

Mediated communication is at the core of DRR efforts, where scientific information on disaster and risks needs to be translated into messages that people can comprehend and act upon. Through mass media, community media, and digital channels, early warnings, preparedness advice, and recovery information can reach the public fast and at scale so they can protect themselves from danger when disaster strikes (UNESCO, 2017). Media has been crucial to all phases of disaster management, involving preparedness, recovery and response. Different media respond to diverse target populations. Mass media involves all age clutches; nevertheless, new media, particularly social media, is primarily preferred by the newer generation. In addition, the mass media plays an indispensable part in influencing decision-making and fostering public trust in DRR measures by converting complex information into simple formats and preventing disinformation (Vermaak & Niekerk, 2004; Alam et al., 2020). Furthermore, mass media is essential in DRR by allowing efficient, broad, and trustworthy distribution of information before, during, and after disasters. It is a highly effective medium for engaging a vast audience across diverse geographical and social groups. Notwithstanding the growing prevalence of social media, mainstream media, such as newspapers, television, and radio, continues to remain the main medium for individuals seeking information linked to disaster (Rahmanzadeh, 2012; Raj et al., 2010).

Mass media possesses the capacity to take a leadership role that impacts society views, fostering a proactive rather than a reactive mind-set. The implementation of early warning systems in disaster-prone regions represents an extensive contribution by electronic media. Radio channels are essential because of their broad accessibility, even in the most isolated regions. The media can enhance the development of a more informed community with increased awareness of disaster preparedness and mitigation. Japan shows community resilience in response to frequent earthquake occurrences. Nationwide awareness programs, training sessions, and drills are being implemented, with media sources producing and disseminating these initiatives. Given the existence of financial interests in private media organizations it is essential to emphasize the ethical and moral aspects of the media's function during a disaster. The media should demonstrate increased accountability in the appropriate distribution of information. To regain individuals' trust, it is essential to provide them with precise and reliable information. The media should not only provide factual information and convey appropriate messaging promptly, but also create a culture of unity and trust. This would enhance the collective responsibilities of all social sectors in addressing the issues faced by any disaster (Hassan & Islam, 2014; Ahsan & Khatun, 2020; Shaw, et al., 2021; Sarma, 2021).

Social Media

Social media helps with DRR by disseminating real-time information, facilitating communication, and enabling community involvement during the emergency period. The

platforms facilitate the fast identification of occurrences, the distribution of essential information and alerts, the organization of relief initiatives, and the activation of community assistance. Despite its effectiveness, obstacles remain, such as the dissemination of misinformation, privacy issues, and the necessity for widespread public access and dependable fact-checking. Social media has become essential for preparedness and disaster response among many stakeholders: local governments educating residents, non-profit organizations delivering awareness and educational messages with situational updates, and communities sharing experiences about risks and challenges (Mavrodieva et al., 2019; Heinkel, 2025). All the way through emergencies, social media platforms (such as blogs, messaging services, Facebook, wikis, etc.) serve seven distinct purposes: observing public opinion, evaluating situations, enhancing disaster response and management, enabling crowd-sourcing as well as collective development, promoting social cohesion, advocating for reasons (including financial donations), and furthering research. The recognition of social media's advantages must be compared with its potential for detrimental effects, such as the dissemination of disinformation and the erosion of authority (Alexander, 2014). Social media has given emergency management with a tool that allows for very rapid and effective reactions to shifting conditions, enabling real-time situational updates. In emergencies, individuals use social media to gather information and connect with family; yet, they may also face frustration from information overload in such situations. The mass media employs social media to distribute updates, serving as a vital resource for journalists, citizens, and disaster management (Mavrodieva et al., 2019). The COVID-19 lockdown obstructed the in-person delivery of preparedness information by disaster management. Mainstream and social media have become vital sources of information concerning disasters. People vulnerable to disasters employ social media to acquire knowledge during the pre-event part of a disaster. It proposes the advantages of widespread spreading of disaster information in contrast to mainstream media such as television and radio. In specific circumstances, social media can disseminate updates news more swiftly than mainstream media. In addition, social media available on smartphones and tablets remains operational during blackouts and is essential during disasters, enabling communication despite a lack of advance warning. It also enables crucial two-way communication between disaster management, which is unfeasible through mainstream media (Sultan & Maharjan, 2022).

Small Media

Disaster awareness is disseminated using many small media, including banners, posters, pamphlets, brochures, flashcards, hazard maps, public announcements, mock drills, folk songs, pictorial storytelling, street theatre, and courtyard events utilized by NGOs and government organizations. These media are employed in various formats to convey messages to individuals and groups via NGO professionals, government representatives and volunteers. The small media remove mainstream media constraints, enable direct community interaction,

disseminate timely information regarding threats and preparedness, and serve as effective tools for public education and early warning in times of disaster (Sultan & Maharjan, 2022). In addition, small media are also familiar with alternative media. This medium includes many formats such as print, radio, film/video, online/digital platforms, and street art. They tend to be defined by their content, production techniques, or distribution methods that diverge from the mainstream media, emphasizing local viewpoints and particular communities. Small media promotes direct engagement and discussion within communities, facilitating the exchange of knowledge and experiences to enhance resilience. They can access disadvantaged or rural communities insufficiently covered by mainstream media, delivering essential information and essential links when whole networks collapse (Susmayadi et al., 2014; Lakoro, et al., 2019; Manandhar et al., 2025).

The chosen article for analysis provides multiple research demonstrating that diverse types of small media are employed in DRR awareness initiatives. For instance, Raj et al. (2010), Mahdaviyazad and Abdolahifar (2014), and Manandhar et al. (2025) asserted that posters are designed to disseminate different stages of disaster-related issues. In addition, leaflets and brochures (Manandhar et al., 2025; Mahdaviyazad & Abdolahifar, 2014), banners (Manandhar et al., 2025), flash cards and hazard maps (Zulfa et al., 2024), and mock drills (Mahdaviyazad & Abdolahifar, 2014; Zulfa et al., 2024) are effectively utilized in the distribution of DRR messages.

Campaigns through Media and Communication

Successful public communication efforts usually focus exclusively on media sources for their message. Typically, they connect media initiatives with a wide range of communication channels, both community-oriented and interpersonal, to intensification the reach and regularity of the campaign's messages and to enhance the likelihood of achieving a successful change (Coffman, 2002; Waisbord, 2005). Communication campaigns are crucial for disseminating DRR messages. DRR public awareness campaigns should employ diverse messages, places of interest, and dissemination methods to effectively engage their distinct target audiences (UNISDR, 2004). A literature review (Chagutah, 2009; Okaka, 2010; Susmayadia et al., 2014; Mairl and Buchecker, 2015; Lakoro et al., 2019, Mavrodieva et al., 2019; AlQahtany & Abubakar, 2020; Kim & Madison, 2022; Bhandari & Takahashi, 2022; Jenkins et al., 2022) elucidates the parameters for effective communication efforts. To enhance the efficacy of public risk awareness campaigns, communicators across diverse DRR frameworks must adhere to the following guidelines:

Firstly, mass media are essential for fostering awareness and knowledge, as well as for encouraging others to engage in the process of communication campaigns. In successful campaigns frequently involve the integration of media messages with interpersonal and group communication, alongside small media sources. Moreover, interpersonal communication, especially via peer groups and social networks, is crucial for changing attitudes and behaviors, as well as for sustaining these changes. Secondly, the message must remain as clear as practicable, constant, concise, and subject to ongoing

evaluation and enhancement. The message must be disseminated across diverse places, communication contexts, and channels to effectively engage every category of stakeholders residing in at-risk areas. The reliability and trustworthiness of a communicator remain crucial and can significantly affect the results of any form of communication strategy. Thirdly, mass media outlets must be supplemented by smaller media formats, including posters, flyers, videos, film strips, and audio recordings. Folk media, including song, theatre, and storytelling, dance, and puppetry, engage community participation in the planning and execution of message dissemination, thereby ensuring credibility, cultural sensitivity, and consideration of local knowledge in message formulation. Fourthly, it is essential to assess both the goal and messaging of the communication campaign to make sure compatibility with media practices, audience inclinations, and resource availability. Finally, the messages of communication campaigns must be timely and culturally relevant; also, the channels for dissemination must be available to the audience.

Conclusion

The paper presents a literature review to investigate the question: 1. how do NGOs engage with DRR activities? And 2. How do media and communication contribute to DRR? The researchers discover that NGOs are helpful in enhancing DRR with community-based activities, awareness campaigns, building capacity, and advocacy globally, including in Bangladesh. Their strong relationships to local communities allow them to recognize vulnerabilities and execute strong prevention and mitigation techniques. Along with the support provided by NGOs, the fulfilment of fundamental requirements (shelters, health, education, and sanitation,) for

beneficiaries is inadequately successful in enhancing disaster resilience owing to the absence of a comprehensive plan of action. The large part of their programs are project-oriented and run several months (Seddiky et al., 2025). If their projects are designed for the long term and involve collaboration with governmental bodies, international agencies, and local stakeholders, NGOs would facilitate the incorporation of DRR into globally conscious development initiatives. Their proactive engagement reduces disaster consequences and enables communities to enhance their resilience and self-sufficiency in handling potential threats. In addition, Media and communication are essential in DRR by connecting government, communities, and emergency personnel. The media facilitates risk comprehension and preventive action before to disasters by prompt sharing of knowledge, awareness campaigns, and community education. Effective communication techniques foster preparedness, facilitate behavioural change, and enhance community resilience. Consequently, incorporating media and communication into DRR initiatives proves essential for fostering safer, informed, and disaster-resilient communities.

Credit Author Statement

Mousumi Khatun: Conceptualization, Investigation, Methodology, Original Draft Preparation, Findings, Discussion, and Editing.

Pradip Kumar Panday: Supervision, Review and Editing.

Conflict of Interest

The authors declares no conflict of interest.

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