

Habari Leo and Mwananchi Newspapers and the 2019 Flood Disaster Information Dissemination in Dar es Salaam, Tanzania

***Malima Pamba Zacharia** 

School of Journalism and Mass Communication, University of Dar es Salaam
zacharia_malima@yahoo.com

Innocent Mwalo

School of Journalism and Mass Communication, University of Dar es Salaam
imwalo@gmail.com

Abstract

This paper reports the findings of a study that assessed two Kiswahili newspapers in Tanzania, *Habari Leo* and *Mwananchi*, for their information dissemination of the 2019 Dar es Salaam flood crisis. They primarily evaluated the extent to which each of the two newspapers was published in Kiswahili, a language widely accessible in this East African nation. They explored the challenges of disseminating flood-disaster information in Tanzania. The study subjected news stories, features, editorials, letters to the editor, and advertisements/PSA published in the two newspapers in April, May, and June 2019. The study found that dissemination in both publications was low, which is inadequate. News reports about flood disasters received the least coverage (0.1%), followed by feature stories (1.25%), editorials (3.75%), and letters to the editor (8.75%) in both newspaper outlets. Compared with *Mwananchi*, which disseminated three early warning news pieces, three letters to the editor, and one editorial in April 2019, *Habari Leo* disseminated only one news story and one letter to the editor. The absence of specialised reporters, inadequate infrastructure, uncooperative disaster management agencies, budgetary constraints, and misinformation from flood victims were the leading causes of such limited news dissemination.

Keywords: Newspaper, Disaster Information Dissemination, Early Warning, Pre-disaster, Flood disaster.

<https://dx.doi.org/10.4314/udslj.v20i2.8>

Introduction

Flood disasters have increasingly affected many African countries, resulting in widespread loss of life, displacement of populations, and significant socio-economic disruption. Countries such as Mozambique, Nigeria, Kenya, Sudan, South Africa, Malawi, and Tanzania have experienced recurrent and severe flooding events in recent decades, often linked to climate change, extreme rainfall, rapid urbanisation, and inadequate drainage infrastructure (World Bank, 2019; UNDRR, 2020). For instance, Cyclone Idai caused

* Corresponding Author



catastrophic flooding in Mozambique, Zimbabwe, and Malawi in 2019, displacing millions of people and destroying critical infrastructure (UNDRR, 2019). Similarly, seasonal floods along the Niger and Benue rivers in Nigeria and in the Nile Basin in Sudan have repeatedly resulted in loss of life, agricultural damage, and large-scale displacement (World Bank, 2021). In East Africa, countries such as Kenya and Tanzania continue to experience urban and riverine flooding that disproportionately affects low-income communities living in flood-prone areas (IPCC, 2022). These recurring flood events underscore the vulnerability of African countries to climate-induced disasters and highlight the urgent need for effective early warning systems, resilient infrastructure, and robust disaster-risk communication mechanisms.

Tanzania and the Flood Woes

In East Africa, Tanzania is among the countries most severely affected by floods (World Bank, 2019). Historical records indicate that as early as 1872, a “cyclone” struck Zanzibar and Bagamoyo, destroying a hospital and affecting an unspecified number of people (Bushesha & Mbura, 2015). Contemporary projections further suggest that flooding in Tanzania will continue to threaten thousands of lives and cause damage to assets worth billions of shillings if effective mitigation measures are not strengthened (World Bank, 2019). The Dar es Salaam region is particularly vulnerable due to its coastal lowland location and rapid urban expansion. Recurrent floods have caused loss of life, injuries, and extensive damage to infrastructure, with major flood events recorded in 2009, 2010, 2011, 2014, 2015, 2017, 2018, and 2019 (C40 Cities Finance Facility, 2020). Other regions frequently affected by flooding include Tanga, Mbeya, Coast, Morogoro, Arusha, Rukwa, Iringa, Kigoma, Mwanza, and Lindi (Bushesha & Mbura, 2015; UN-HABITAT, 2011; World Bank, 2019).

Notably, Dar es Salaam experienced one of the most severe flooding episodes in its history in April 2018, when rainfall totalled 81.8 mm between 14 and 15 April, followed by an additional 99.6 mm over the subsequent 24 hours (World Bank, 2019). This event affected approximately 15,900 people nationwide, including about 12,000 residents of Dar es Salaam, resulting in 15 deaths, 11 injuries, and one fatality in Arusha. Similarly, heavy rains in May 2019 caused widespread flooding and road closures, displacing 2,151 households, collapsing 42 houses and 21 latrines, and severely damaging 342 houses (World Bank, 2019; C40 Cities Finance Facility, 2020).

In response to the persistent flood risk, the Government of Tanzania has implemented several institutional and policy measures to manage disaster risk. These include the National Disaster Policy of 2004, the establishment of the Disaster Management Department (DMA), and the Tanzania Meteorological Agency (TMA) (Bushesha & Mbura, 2015; Mbura, 2014). The DMA operates under the Prime Minister’s Office in accordance with the Disaster Management Act No. 17 of 2015 and is responsible for coordinating responses to floods and other natural disasters. The TMA, established under the Government Executive Agencies Act No. 30 of 1997, provides meteorological services and disseminates flood-related warnings and advisories to stakeholders, including the mass media and government institutions (Bushesha & Mbura, 2015; Mbura, 2014).

Furthermore, the government has developed and implemented several national and local initiatives to address climate change and disaster risk reduction, including the Sustainable Dar es Salaam Project, the Strategic Urban Development Plan (SUDP), the Community Infrastructural Upgrading Programme (CIUP), and the African Urban Risk Analysis Network (AURAN) Project (Mutanga & Mwiruki, 2013). Despite these efforts, flooding remains a recurring challenge in Dar es Salaam. Projections indicate that flood impacts could affect up to 54 million people by 2030 if substantial intervention measures are not undertaken (Mutanga & Mwiruki, 2013; Bushesha & Mbura, 2015). The severity of flood impacts varies across contexts. It is influenced by the effectiveness of meteorological institutions and the capacity of mass media to disseminate timely and accurate risk information to the public (World Resource Institute, 2015; URT, 2016; Zaheer, 2016; GWP & WMO, 2015).

The Problem: Newspapers and Flood Alerts and Management

The persistence of flood disasters in Dar es Salaam has primarily been attributed to inadequate public awareness, prompting the Ministry of Land, Housing, and Human Development to call for coordinated interventions among relevant institutions (Kayombo, 2016). In this context, the mass media—particularly print media—have emerged as a critical stakeholder in disseminating flood-related information and supporting informed public decision-making (URT, 2016; Zaheer, 2016; GWP & WMO, 2015). Beyond information dissemination, the mass media facilitate dialogue between the public and disaster management institutions, thereby strengthening disaster-risk governance. Their capacity to rapidly transmit information across broad geographic areas and large populations is widely recognised as a key component of effective disaster risk communication (Djalante et al., 2017; Hampson et al., 2016; Familusi & Owoeye, 2014; Murthy, 2011).

Flood disasters in Dar es Salaam continue to occur mainly due to limited public awareness, despite the city's long-standing exposure to flooding, particularly in river valleys and other low-lying areas. In response to this challenge, the Ministry of Land, Housing, and Human Development has called for coordinated efforts among relevant institutions to mitigate flood risks. Within this framework, the mass media have emerged as a key stakeholder in disseminating flood-related information and facilitating dialogue between the public and disaster management institutions (URT, 2016; Zaheer, 2016; GWP & WMO, 2015). Mass media—especially print media—possess the capacity to disseminate information across broad geographic areas and large populations rapidly. Although radio remains the most widely accessed medium, several studies indicate that newspapers are particularly effective in communicating flood-related information in Africa and globally (Djalante et al., 2017). This underscores the critical role of mass media in disaster risk communication and in supporting informed public decision-making.

Newspapers maintain the credibility of print media by producing original, reliable content that is trusted by both the public and journalists and is often consulted for information about disasters (Ganiyu, Mohammed & Ismail, 2017; Nabuzale, 2017). Newspapers play a crucial role before, during, and after a disaster, connecting affected people with relief-providing agencies and accelerating search-and-rescue operations (Poudel, 2016; Zaheer, 2016; GWP & WMO, 2015; Jayasakara, 2015; Harris & Spark, 2011). They also help maintain order by ensuring people have access to the necessary help and preventing panic. In the digital age,



social media recycles content from traditional publications, but newspapers continue to play a vital role in connecting affected people with relief-providing agencies and ensuring their safety (Diel, 2017; Martin, 2015).

Scholars widely acknowledge the critical role of print media in disaster risk communication. Firoz-Ul-Hassan and Islam (2014) emphasise that newspapers play a vital role in educating the public, issuing early warnings, and facilitating informed discussions on disaster preparedness and response, particularly during flood disasters. Similarly, Rahayu (2018) highlights the role of print media in promoting public self-preparedness, while Gul et al. (2020) argue that the media serves as a watchdog by exposing weaknesses in disaster management policies and raising awareness of natural hazard risks. During disaster events, timely, accurate, and sensitive reporting enables newspapers to inform affected populations, advise on protective actions, support marginalised groups, and communicate emerging secondary risks (Firoz-Ul-Hassan & Islam, 2014). In the post-disaster phase, print media further contributes by advocating for relief, rehabilitation, accountability, and effective aid coordination.

In Tanzania, despite widespread recognition of the pivotal role of print media in disaster communication, there has been limited systematic research examining the extent to which newspapers disseminate flood-related information as part of early warning and flood management efforts. Consequently, many residents of Dar es Salaam continue to suffer avoidable loss of life and property, particularly those living in highly flood-prone areas such as the Msimbazi Valley, mainly due to inadequate access to timely and relevant information. This study sought to address this gap by assessing coverage of the 2019 flood disaster in two leading Kiswahili newspapers—*Habari Leo* (public) and *Mwananchi* (private). By focusing on Kiswahili publications, the study examines media outlets that do not present a linguistic barrier to low-income populations, who are often the most vulnerable and disproportionately affected when flooding occurs in the city.

Theoretical Framework: Agenda-Setting

This study explores the role of newspapers in the pre-, during, and post-flood stages of disasters, drawing on agenda-setting theory. The theory originated from early work on political behaviour, focusing on the impact of media coverage on campaigns and elections. The term “agenda-setting” was coined in 1972 by Maxwell McCombs and Donald Shaw at the University of North Carolina at Chapel Hill (Berger & Freeman, 2011). They used the 1968 US presidential polls as a case study to examine the correlation between the mass media's priority issues and the public's priorities. Their findings showed a relationship between the issues disseminated by the mass media and the public's perceived priorities, indicating media agenda-setting. The study concluded that the media can effectively set the public agenda by consistently and prominently featuring issues in their news dissemination.

The agenda-setting theory suggests that the mass media can influence public opinion and actions regarding critical issues, people, and topics. Even though “the mass media may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its audiences what to think *about*” (Cohen, 1963, p. 13). In modern-day societies, the media play a role in shaping the public agenda, particularly on environmental issues

(Mare, 2011). Mass media play a crucial role in raising citizens' awareness of these issues, as most rely on them for information (Schmidt, Ivanova & Schafer, 2013; Meisner & Takahashi, 2013). The media's coverage of these issues is strongly correlated with the importance they are attributed by mass audiences (McCombs & Shaw, 1972; McCombs, 2004, 2015). The theory suggests that people's awareness and attention to specific issues depend on the media's coverage (Ewart & McLean, 2018; Soroka et al., 2015), hence allowing the media to set the agenda and influence public responses during pre-, during, and post-flood disasters, which is why its appropriateness in informing this study.

Context and Methods

The study investigated newspaper coverage of early warnings and flood disaster management during the 2019 floods in Dar es Salaam. It adopted a sequential mixed-methods approach, combining quantitative content analysis with semi-structured qualitative interviews to capture both the extent and depth of flood-related coverage. A multiple-case study design focusing on Habari Leo and Mwananchi newspapers was employed to analyse news stories published between April and June 2019, while purposive sampling was used to interview 10 journalists (reporters and editors) to explore challenges and opportunities in flood reporting. Data were collected through document review, observation, and interviews, and analysed using SPSS for quantitative data and thematic analysis for qualitative data. Overall, the methodology provided a robust framework for triangulating findings on media coverage of flood disasters in Tanzania. The data were collected and presented in tabular form to show the extent to which Tanzanian Kiswahili newspapers disseminate information about flood disasters.

Table 1: Detailed information on the newspapers' contents that were investigated

S/No.	Content	Explanation
1.	News	It is a new piece of information about a significant, recent event that affects the audience and interests them. Can provide timely information about the conditions and needs of affected people.
2.	Feature	It is more extensive and detailed than the news. Unlike news, which mainly comprises a few paragraphs, a feature can be more than a page, a page and a half.
3.	Editorial	This piece is the opinion of the newspaper's organisation. It is a write-up on a particular topic that the media house considers of immense importance to the public. The editorial is usually taken seriously, especially by policymakers.
4.	Letters to the editor	These emanate from the readers. It is both a feedback mechanism and a channel for readers to express their views on societal happenings. These individuals can contribute to disaster awareness by writing about disasters that have occurred or are imminent in the country.



5.	Advertisement/PSA	Advertisements are another effective way to disseminate information and educate the public. As part of social responsibility and in line with good courses, the media can donate space to good courses aimed at solving social problems, such as disaster prevention, through public enlightenment and media campaigns.
----	-------------------	---

The study's timing was based on the premise that in April and May, Dar es Salaam receives heavy rainfall, and that June is the month following the flood disaster. Road closures and floods were caused by the 144mm of rain that fell in May 2019. The intense downpour resulted in the relocation of 2,151 households, the collapse of 42 dwellings and 21 pit-latrines, and considerable damage to 342 houses. In addition to content analysis, the study also conducted interviews with journalists to gather additional data and triangulate the findings.

Results and Discussions

Collectively, *Habari Leo* newspaper disseminated 1,050 news stories in April, 1,085 in May, and 1,050 in June 2019. On the other hand, *Mwananchi* newspaper disseminated a total of 1,200 and 1,240 news stories in April and May, respectively. In June, *Mwananchi* newspaper disseminated 1,200 news stories. Over these three months under review, *Habari Leo* and *Mwananchi* newspapers published 3,185 and 3,640 news stories, respectively. It also emerged that *Habari Leo* newspaper published three feature stories on average per issue. Based on the sample of 40 issues investigated, the paper published 120 feature stories. *Mwananchi* newspaper, on the other hand, published one feature story per issue on average. Therefore, from a sample of 40 issues, *Mwananchi* newspaper disseminated a total of 40 feature stories. Additionally, in each newspaper, there were 40 editorials and 40 letters to the editor, an average of one editorial and one letter to the editor per issue.

The findings of this study (Table 2) indicate that *the dissemination of the 2019 flood disaster in Dar es Salaam and elsewhere in Tanzania by Habari Leo and Mwananchi newspapers* was low. It was established that news stories related to flood disasters accounted for 0.1 per cent of the dissemination for both *Habari Leo* and *Mwananchi* newspapers over the three months under review. The flood dissemination in feature stories was 1.25%, whereas in editorials it amounted to 3.75 per cent from 1st April to 30th June 2019. The letters to the editor related to the flood disaster accounted for a larger percentage (8.75%) than any other news piece reviewed, indicating that people were voicing their concerns about the disaster.

Table 2: Extent to which *Habari Leo* and *Mwananchi* disseminated the 2019 flood disaster

Content Category	<i>Habari Leo</i> (n)	<i>Mwananchi</i> (n)	Total (n)	Percentage (%)
News	2	6	8	9.88
Feature	0	2	2	2.47

Editorial	0	3	3	3.70
Letter to the Editor	1	6	7	8.64
Adverts / PSA	50	11	61	75.31
Total	53	28	81	100

As data from Table 2 attest, the study's findings are contrary to those of researchers (see, for example, Gul, Samiullah & Khan, 2020), who present the print media as an effective tool for disaster risk communication, citing its ability to disseminate information across diverse locations and large populations rapidly. In a similar vein, Oke et al. (2018) argued that mass media play a critical role in disaster management by creating flood-related content that raises awareness and educates citizens on how to protect themselves from disasters. Nevertheless, in the current study, most flood-related stories (87.5%) disseminated by *Habari Leo* and *Mwananchi* newspapers were not considered important enough to appear on the front pages. As a result, they languished in the inside pages.

The front page is crucial for highlighting critical events such as floods, as it captures readers' attention and editors thus focus on determining which story elements qualify for this space (Kim & Chung, 2017; McQuail, 2010). Instead of marking the flood articles marked as "primary important" that should be pinned to prominent front-page positions, as Fedyk (2018, p. 3) has argued, the editors of two newspapers under review seem to downgrade the news value of flood disasters, hence the burying of 87.5 per cent of the news stories on flood disasters published between April 1 and June 30 in the inside pages.

The study further revealed that *Habari Leo* and *Mwananchi* newspapers accounted for only 1.25 per cent of the total coverage of feature stories on flood disasters. Although the two newspapers published a substantial number of feature stories during the study period (April 1 to June 30, 2019), none of the 120 feature stories disseminated addressed flood-related issues. This limited use of in-depth feature reporting constrained stakeholders' understanding and engagement in flood disaster preparedness and prevention. Furthermore, the newspapers' inadequate dissemination of flood-related editorials, which accounted for only 3.75 per cent of coverage, limited their potential influence on policymakers. The ability of editorials to shape government policy largely depends on the prominence and sustained emphasis a newspaper places on a given issue, which was notably lacking in the case of flood disasters.

From the perspective of Agenda-Setting Theory, the findings suggest that *Habari Leo* and *Mwananchi* newspapers accorded flood disasters low salience through their limited use of feature stories and editorials. Agenda-setting theory posits that the prominence and frequency with which the media cover an issue significantly influence the public's perception of its importance and, consequently, policymakers' prioritisation of that issue. In this study, feature stories on flood disasters accounted for only 1.25 per cent of the total coverage, and none of the 120 feature stories published between April 1 and June 30, 2019, addressed flood-related issues. This absence of in-depth reporting limited the media's capacity to elevate flood disasters on the public agenda and to mobilise stakeholders' engagement in flood disaster preparedness and prevention. Similarly, the minimal dissemination of flood-related editorials (3.75%) reduced the newspapers' potential to influence policy debates and government action, as editorials are a key agenda-setting tool



through which the media interpret issues and advocate policy responses. The limited emphasis placed on flood disasters, therefore, constrained both public awareness and policy attention to flood risk management.

Similarly, the study found that letters to the editors of *Habari Leo* and *Mwananchi* newspapers were rarely published, with only 8.75 per cent addressing flood disasters. These letters to the editor serve as a feedback mechanism and a platform for readers to express their views on societal issues (Ganiyu, Mohammed, & Ismail, 2017; da Silva, 2011). Also, *the Habari Leo newspaper, in particular, provided space for Public Service Announcements (PSAs)* issued by the Tanzania Meteorological Agency (TMA) to disseminate early warning messages, advocate for risk reduction, and inform the public about preparedness. In this regard, *Habari Leo*, as a public newspaper, disseminated more PSAs based on TMA than *Mwananchi* in April 2019, with 24 (39.3%) disseminated. *Mwananchi* newspaper did not disseminate any PSAs in April, but did publish one news story and one letter to the editor related to the early flood disaster warning.

Several studies (Ganiyu et al., 2017; Zaheer, 2016; Gul, Amiullah, & Khan, 2020) underscore the critical role of print media in disaster management, particularly in disseminating early warning information and educating the public on disaster risk reduction and prevention. Through timely and accurate reporting, the media enable access to disaster-related information and help minimise the frequency and severity of disaster impacts. Journalists, therefore, play a central role in issuing warnings and engaging communities in preventive and remedial actions during the pre-disaster phase. However, findings from the present study indicate that the media did not adequately cover the pre-disaster period, a shortcoming that heightened vulnerability, increased property damage, and contributed to loss of life. This failure suggests that the media did not fully fulfil one of their core social responsibilities. Specifically, during the May flood disaster, *Mwananchi* disseminated 11 public service announcements (PSAs), representing 18.3 per cent of its total coverage, while *Habari Leo* disseminated 26 PSAs (42.6%). In addition, *Mwananchi* published three news stories, two feature stories, and two editorials during the disaster period. In contrast, *Habari Leo* published only one news story and no feature stories, editorials, or letters to the editor. Notably, both newspapers provided limited coverage during the pre-disaster phase, thereby failing to offer adequate early warnings. Overall, despite the recognised importance of effective communication in disaster preparedness, the two newspapers provided insufficient coverage of the pre-disaster period, undermining their contribution to disaster risk reduction.

Although global scholarship highlights the role of print media in disaster risk reduction, this study does not generalise globally; instead, it uses international evidence as a benchmark for evaluating media performance within a specific national context. Using a strategic selection of two influential Kiswahili dailies—*Habari Leo* (public) and *Mwananchi* (private)—the study assessed whether widely expected disaster communication functions (early warning, public education, and mobilisation) were realised. This case selection is justified because Kiswahili newspapers typically offer greater public accessibility than elite-oriented English print media, making them particularly relevant for risk communication among populations most at risk of flooding. From an agenda-setting perspective, the limited emphasis placed on pre-disaster flood information constrained the salience of preparedness

on the public agenda, thereby weakening stakeholder engagement and reducing pressure for timely policy response.

These study findings imply that phase-wise media involvement in flood disasters, emphasising equal coverage of all three phases, is important. Mass media should focus on mitigation and preparation for future disasters, linking victims to the government apparatus and international community for rescue (Gul et al., 2020). After all, victims need information on available assistance, personal risks, and protective measures. Mass media is an effective tool for disaster risk communication, providing reliable and timely information to help overcome fear and fatalism (Gul et al., 2020; Yandra et al., 2017). It also raises awareness of safe shelters, evacuation tactics, and better building practices in coastal cities.

The findings of this study carry important implications for disaster risk communication and media practice in Tanzania. Contrary to Bansal's (2018) assertion that disaster coverage compels governments to prioritise equitable relief efforts, this study suggests that limited and reactive newspaper coverage may undermine the media's capacity to influence timely governmental response. Instead, the findings align more closely with Sreedharan et al. (2019), who observed that media reporting on flood disasters often prioritises accounts of deaths and physical destruction over comprehensive coverage that includes preparedness, early warning, and recovery planning. This tendency implies that local newspapers may be underutilising their agenda-setting role, particularly during the pre-disaster phase, when media intervention could significantly enhance public preparedness and institutional responsiveness. The study, therefore, highlights the need for Tanzanian newspapers to adopt a more proactive, phase-oriented approach to flood reporting to support effective risk reduction and informed decision-making before disasters occur. Regarding this, a journalist working with *Mwananchi* newspaper was quoted as saying:

Given the long-term impacts of flood disasters, journalists can draw on information from previous flood events and multiple sources to develop follow-up stories that address both the pre-disaster and post-disaster phases. These phases often receive limited media attention, partly due to the response patterns of government institutions responsible for disaster management (Interview, *Mwananchi* journalist, March 12, 2020).

During disasters, people rely on information from both electronic and print media, leading to decisions about whether to stay or evacuate during floods (Sreedharan et al., 2019). Flood disasters can be predicted if the media and stakeholders work together to reduce risks. Journalists from *Habari Leo* and *Mwananchi* newspapers also called for consistency in covering the three phases of floods, emphasising the importance of consistent reporting during such emergencies. As one of them pointed out:

Rather than becoming active only after a disaster occurs, the media should remain vigilant and proactive beforehand, particularly for predictable disasters. By drawing lessons from previous disasters—how they were managed and what could have been done differently—consistent media engagement during the pre-disaster phase can substantially reduce both human and material losses (Interview, journalist, March 2020).

This observation reinforces Zaheer's (2016) findings from Pakistan, which emphasise the need for mass media to reorganise their reporting priorities when covering predictable disasters such as floods. This recommendation is equally applicable in the Tanzanian context. However, this study also identified several structural and professional challenges that constrain effective flood reporting by Tanzanian journalists, most notably the lack of specialised training in environmental and disaster journalism. Currently, environmental reporting is not offered as a standalone course in journalism training institutions in Tanzania, resulting in a workforce dominated by generalist reporters with limited subject-specific expertise. Consequently, journalists are often assigned to cover flood disasters without prior training or adequate preparation, undermining the quality and depth of coverage. One journalist articulated this challenge as follows:

Most journalists who report on flood disasters have not specialised in this area. If newsrooms invested in structured training on disaster reporting, journalists would gradually develop the necessary expertise. However, in many cases, reporters are assigned to cover floods only after they occur and without prior training, which limits their ability to produce informed and effective coverage (Interview, March 12, 2020).

Researchers such as Sreedharan et al. (2019) and Ganiyu et al. (2017) have documented a persistent lack of professional training for journalists covering flood disasters in various contexts, including Tanzania and Nepal. This deficiency has contributed to criticisms regarding the limited depth, development, and analytical orientation of media reporting on flood-related issues. Addressing this gap requires journalism training institutions and media organisations to design and implement structured courses that equip journalists with the necessary skills for disaster and environmental reporting, both through formal curricula and continuous professional development programmes. In addition, the technical nature of environmental reporting discourages many journalists from engaging with flood-related stories, as such reporting is often perceived as complex and scientifically demanding in terms of information gathering and presentation. A journalist from *Mwananchi* newspaper explained this challenge as follows:

Disaster reporting is often highly technical, and journalists may struggle to understand specialised terminology used by disaster experts. As a result, some journalists avoid covering flood-related stories, particularly during the pre-disaster phase when risks are not yet visible. Consequently, media attention tends to focus on the disaster phase itself, when losses of life and property are already evident (Interview, March 4, 2020).

The study further revealed weak cooperation between journalists and flood management institutions in Tanzania, which significantly constrained journalists' access to timely and detailed flood-related information. Reporters frequently encountered difficulties obtaining verified data from responsible authorities, thereby limiting comprehensive, accurate reporting during flood events. An editor from *Habari Leo* newspaper noted that this challenge persists despite the newspaper's government ownership, underscoring broader

institutional communication gaps between disaster management agencies and the media. The editor explained this challenge as follows:

As a government-owned newspaper, we are required to verify information with relevant government authorities before publication. However, during flood disasters, we often struggle to obtain reliable information from officials. Some institutions make repeated promises without providing substantive details, while others withhold critical information altogether, which ultimately hampers our ability to meet publication deadlines (Interview, March 12, 2020).

This finding further demonstrates that inadequate institutional coordination between journalists and flood management organisations constitutes a significant barrier to effective flood disaster reporting in Tanzania. Limited access to timely, credible information constrains journalists' ability to provide comprehensive, accurate coverage, thereby weakening the media's role in informing the public and supporting disaster preparedness. A journalist from *Mwananchi* newspaper highlighted this challenge, noting that institutional information asymmetries and communication failures frequently undermine journalistic efforts to report responsibly on flood disasters. The journalist explained:

Journalists often receive limited cooperation from government institutions responsible for flood disaster management. In many instances, these organisations possess critical information needed by the public but respond to media inquiries with repeated assurances rather than verifiable data, thereby restricting journalists' access to credible and timely flood-related information (Interview, March 4, 2020).

The study further revealed a prevailing sense of mistrust between flood management authorities and the media, with officials frequently accusing journalists of misreporting or distorting disaster-related information. This finding is consistent with previous studies conducted in Nepal and Pakistan, which documented journalists' limited access to authoritative sources and the absence of precise mechanisms for verifying disaster information (Sreedharan et al., 2019; Zaheer, 2016). Such mistrust undermines the media's capacity to perform its informational and watchdog roles effectively. To address this challenge, establishing and maintaining direct, institutionalised working relationships between disaster management organisations and the media is essential. Regular engagement between these actors before disasters occur can enhance information flow, build mutual trust, and facilitate more effective collaboration during and after flood events.

In addition to institutional barriers, the study identified social and legal factors that further constrained journalistic reporting. Some flood victims had settled illegally in flood-prone areas and were previously relocated by the government to Mabwepande, making them reluctant to engage with the media. Fear of being identified by authorities and potentially facing repercussions discouraged these individuals from serving as news sources. A journalist from *Mwananchi* newspaper described this challenge as follows:

Many residents from flood-prone areas such as Msasani Bonde la Mpunga (Rice Valley), the Msimbazi Valley, and Jangwani were relocated to Mabwepande following the 2011 rains. As a result, it is difficult to involve them as sources



because some fear that speaking to the media may expose their return to these areas, which they occupy illegally (Interview, March 4th, 2020).

The study further revealed that misconceptions among flood victims posed an additional challenge to effective media reporting. In several instances, affected individuals perceived journalists as representatives of charitable organisations and consequently requested financial assistance. Such misunderstandings complicated journalistic engagement and data collection. In these circumstances, Bansal (2018) emphasises that the media must adhere to strong ethical and moral standards to build public trust and ensure the responsible and accurate dissemination of information during disasters.

In addition, journalists' access to flood-affected areas was frequently constrained by Dar es Salaam's topographical vulnerability, inadequate infrastructure, and limited availability of advanced reporting technologies in newsrooms. During periods of intense rainfall, these challenges restricted mobility and safety, compelling journalists to focus their coverage on relatively accessible locations such as Jangwani and Msasani Bonde la Mpunga, while other severely affected areas received limited attention. This uneven coverage further constrained comprehensive flood reporting across the city. A journalist from *Mwananchi* newspaper described this challenge as follows:

Only a few journalists are willing and able to access high-risk areas during flood disasters. Flooding often affects more than half of the Dar es Salaam region, and poor infrastructure makes it extremely difficult for journalists to reach many affected areas (Interview, March 4, 2020).

Similarly, Sreedharan et al. (2019) observe that restricted road networks, limited public transportation, and fuel shortages significantly constrained journalists' ability to access flood-affected communities in Nepal. Consistent with these findings, the present study identified inaccessibility of disaster-affected locations as a significant impediment to effective flood reporting in Dar es Salaam. Financial constraints further compounded this challenge, as both *Habari Leo* and *Mwananchi* lacked dedicated funding to support sustained, in-depth coverage of flood disasters. The absence of specialised budgets limited journalists' mobility, safety, and capacity to document events comprehensively. Moreover, the lack of modern reporting equipment—such as drones and high-quality cameras—restricted journalists' ability to gather accurate, reliable information from diverse, hard-to-reach locations. Adequate financial investment is therefore essential not only for operational costs and safety provisions but also for equipping newsrooms with appropriate technologies to enhance disaster coverage. A journalist underscored this need by stating:

Journalists require modern tools, such as drones and advanced cameras, to obtain accurate information from multiple hard-to-access locations. Without such equipment and sufficient funding, comprehensive flood coverage becomes extremely challenging (Interview, March 2020).

Conclusion

Overall, the study concludes that *Habari Leo* and *Mwananchi* did not adequately inform the public about flood hazards or effectively encourage precautionary actions across the different phases of flood disasters. The analysis indicates that flood-related dissemination in the two newspapers was insufficient to support informed decision-making or promote behavioural change that could reduce vulnerability and loss during flood events. In addition, the coverage failed to adequately highlight the specific needs of flood survivors, thereby limiting public, relief organisations, and government authorities' awareness of these needs. The findings further suggest that closer and more systematic collaboration between the media and key institutions such as the Disaster Management Department (DMA) and the Tanzania Meteorological Agency (TMA) could have strengthened early warning communication, particularly during the pre-flood period, which emerged as the weakest phase of coverage. Structural constraints—including inadequate funding, limited access to modern reporting tools, and the absence of specialised disaster-reporting skills—also undermined comprehensive flood coverage. Consequently, the study underscores the need for sustained investment in media capacity-building, improved institutional coordination, and specialised training in environmental and disaster journalism to enhance preparedness, response, and post-disaster reporting in Tanzania.

References

- Adeyinka, A., Oke, M., & Oluseyi, G. (2018). Media and disaster management: Analysing communication trends in flood-ravaged communication. *Journal of Media and Communication*, 9(10): 106-112.
- Amarasinghe, U., Amarnath, G., Alahacoon, N., & Ghosh, S. (2020). *How do floods and droughts impact economic growth and human development at the sub-national level in India?* Colombo: International Water Management Institute (IWMI).
- Berger, L. & Freeman, M. D. J. (2011). The issue of relevance of Agenda-setting theory to the online community. *META-COMMUNICATE*, 1(1): 1 – 22.
- Bushesha, M. S. & Mbura, J. A (2015). Identification of reasons for and socio-economic impacts of persistent floods in Dar Es Salaam. *World Journal of Social Science Research*, 2 (2): 180 – 190.
- C40 Cities Finance Facility. (2020). *Flooding in East Africa*. London & Berlin: C40 Cities Climate Leadership Group and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
- Cohen, B. (1963). *The press and foreign policy*. Princeton, NJ: Princeton University Press.
- Diel, S. (2017). New media, legacy media and misperceptions regarding sourcing. *KOME – An International Journal of Pure Communication Inquiry*, 1: 104 – 120.
- Djalante, R., Garschagen, M., Shaw, R., & Thomas, F. (2017). *Disaster risks reduction in Indonesia: progress, challenges and issues*. Furijawa: Spring International Publisher.



- Ewart, J. & McLean, J. (2018). Best practice approaches for reporting disasters. *Journal of Journalism*, 1: 1–20.
- Familusi, E. B. & Owoeye, P. O. (2014). An assessment of the use of radio and other means of information dissemination among the residents of Ado-Ekiti, Nigeria. *Library Philosophy and Practice (e-journal)*. Paper 1088. Available from <http://digitalcommons.unl.edu/libphilprac/1088>.
- Fedyk, A. (2018). *Front page news: The effect of news positioning on financial markets*. Retrieved July 9, 2021, from https://scholar.harvard.edu/files/fedyk/files/afedyk_frontpagenews.pdf
- Firoz-Ul-Hassan, A. & Islam, M. T. (2014). Roles of print media in disaster management in Bangladesh: An evaluation in the light of cyclone Aila. *Journal of the People's University of Bangladesh*, 7 (2): 13 – 20.
- Ganiyu, M., Ismail, A., & Mohammed, R. (2017). Disaster risk reduction: Framing of flood disasters in Nigerian newspapers. *Journal of Science Communication*, 1(12): 151–164.
- Ganiyu, M., Ismail, A., & Mohammed, R. (2017). Effective media involvement in flood disaster management in Nigeria. Pressing problems and recommendations. *Journal of Education, Arts and Science*, 4(1): 120 – 132.
- Gul, S., Samiullah, A. R., & Khan, R. A. (2020). Comparing the agenda-setting role of the Pakistani and Indian newspapers in disasters: A case study of the 2005 Kashmir earthquake. *Erdkunde*, 74 (4): 301–316.
- GWP & WMO. (2015). *Integrated flood management tools series. The role of media in flood management*. Series No.22. Geneva.
- Hampson, K., Leclair, M., Gebru, A., Nakabugo, L., & Huggins, C. (2016). There is no program without farmers: Interactive radio for forest-landscape restoration in the Mount Elgon Region, Uganda. *Society and Natural Resource*, 1–16.
- Harris, G. & Spark, D. (2011). *Practical newspapers reporting* (4th ed.). Los Angeles: SAGE Publications Inc.
- Intergovernmental Panel on Climate Change (IPCC). (2022). *Climate change 2022: Impacts, adaptation and vulnerability*. Cambridge: Cambridge University Press.
- Kim, Y. S. & Chung, D. S. (2017). Anatomy of front pages: Comparison between the New York Times and other U.S. major metropolitan newspapers. *International Journal of Communication*, 11: 949 – 966.
- Mare, A. (2011). *Climate change, mediation and mediatization in Southern Africa: Towards climate and environmental journalism*. Addis Ababa: Africa Adapt Symposium.
- Martin, F. (2015). The case for curatorial journalism, or can you really be an ethical aggregator? In: Zion, L. & Craig, D. (Eds.): *Ethics for digital journalists: Emerging best practices*. New York: Routledge.

- McCombs, M. & Shaw, D. (1972). The agenda-setting function of the mass media. *Public Opinion Quarterly*, 36: 176 – 187.
- McCombs, M. (2004). *Setting the agenda: The mass media and public opinion*. UK: Polity Press.
- McCombs, M. (2015). The agenda-setting role of the mass media in the shaping of public opinion. *Journal of Journalism*, 55 (1): 1 – 21.
- McQuail, D. (2010). *McQuay's mass communication theory*. (6th Ed). London: SAGE Publication Inc., McLean, H, & Power, M. (2014). When minutes count: tension and trust in the relationship between emergency managers and the media. *Journalism*, 15(3): 307–325.
- Meisner, M. S. & Takahashi, B. (2013). The nature of time: How the covers of the world's most widely read weekly news magazine visualise environmental affairs. *Environmental Communication*, 7(2): 255–276.
- Menne, B. & Murray, V. (Eds.) (2013). *Floods in the WHO European region: Health effects and their prevention*. Copenhagen: World Health Organisation.
- Murthy, G. (2011). *Tanzanian media environment: Current access, potential for growth and strategies for information dissemination*. InterMedia Survey Institute.
- Mutanga, S. S. & Mwiruki, B. (2013). *Managing vulnerability to climate extremes in Africa: Some policy insights into frequent flooding in Dar es Salaam, Tanzania*. South Africa: Africa Institute of South Africa, AISA POLICY brief Number 82.
- Mwape, Y. (2009). *Disaster Risk Management Training and Education Centre for Africa (DIMTEC)*. Published thesis submitted to the University of the Free State, in partial fulfilment of the requirements for the Award of Master of Science in Disaster Management.
- Nabuzale, C. (2017). *Effectiveness of print media factors in crisis communication for natural disasters in Uganda*. Published thesis submitted to Jomo Kenyatta University of Agriculture and Technology in Partial Fulfilment of the Doctor of Philosophy in Mass Communication.
- Ndolu, F. (2013). *The role of broadcasters in disasters reportage. A lesson learned from tsunami reportage in Indonesia*. Retrieved September 7, 2019. from [HTTTPs//www.jamaa.or.jp/en/symposium/21/5](https://www.jamaa.or.jp/en/symposium/21/5).
- Potter, P. (2014). *Media literacy*. (7thed.). Los Angeles: SAGE Publications Inc.
- Poudel, B. (2016). *Developing a disaster management framework for news production in Nepal: A qualitative study on Nepalese media betrayal of disaster events using news frames and PPRR cycle of disaster management*. Published thesis in partial fulfilment of the requirements for the Award of the PhD. Degree from Queen's University.
- Rahayu, P. B. (2018). The role of print media in mitigating flood disasters and public awareness in Makassar City. *Journal of Communication Sciences (JCoS)*, 1 (1): 95 – 104. Rahman, S. (2014). *Impacts of flood on the lives and livelihoods of people in Bangladesh*. Published thesis submitted to Bangladesh University, in partial



fulfilment of the requirements for the Award of Master of Science in Climate Change.

- Schmidt, A., Ivanova, A. & Schafer, M. S. (2013). Media attention for climate change around the world: A comparative analysis of newspaper coverage in 27 Countries. *Global Environmental Change*, 23(5): 1233 – 1248.
- Soroka, S., Lawlor, A., Farnsworth, S., & Young, L. (2015). Mass media and policymaking. In: Araral, E., Fritzen, S., Howlett, M., Ramesh, M., & Wu, X. (Eds.). *Routledge handbook of public policy*. London: Taylor & Francis.
- Statistic View. (2015). Flood toll to triple in the next 15 years. *Statistic View*.
- Svetlanaa, D., Radovana, D., & Ján, D. (2015). The economic impact of floods and their importance in different regions of the world, with emphasis on Europe. *Procedia Economics and Finance*, 34: 649 – 655.
- UN- HABITAT. (2011). *Population and assets exposure to coastal flooding in Dar es Salaam, Tanzania: vulnerability to climate extremes*. Retrieved September 7, 2019, from link.springer.com.
- United Nations Office for Disaster Risk Reduction (UNDRR). (2019). *Global assessment report on disaster risk reduction*. Geneva: UNDRR.
- United Nations Office for Disaster Risk Reduction (UNDRR). (2020). *Human cost of disasters: An overview of the last 20 years (2000–2019)*. Geneva: UNDRR.
- URT. (2016). *Habitat III national report, Tanzania: Final report*. Dar es Salaam. Ministry of Land, Housing & Human Development.
- Uzuegbunam, C. (2013). *Social responsibility theory: A contemporary review*. Retrieved January 17, 2020 from https://www.academia.edu/11187397/The_social_responsibility_theory_Acontemporary_review.
- World Bank. (2019). *Wading out the storm: The role of poverty in exposure, vulnerability and resilience to floods in Dar es Salaam*. Washington, DC: World Bank Policy Research Working Paper No. 8976.
- Zaheer, L. (2016). Media coverage of natural disasters in Pakistan: The case of earthquakes (2005), flood (2010) and famine (2014). *Journal of Communication Studies*, 53(1): 75-94.
- World Bank. (2019). *Wading out the storm: The role of poverty in exposure, vulnerability and resilience to floods in Sub-Saharan Africa*. Washington, DC: World Bank.
- World Bank. (2021). *Climate risk country profiles: Sub-Saharan Africa*. Washington, DC: World Bank.