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*RESEARCH ARTICLE*

# USES OF COMMUNICATION CHANNELS FOR BUILDING AWARENESS IN DISASTER RISK REDUCTION: A CASE STUDY ON SHUSHILAN

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## *Abstract*

Global climate change Bangladesh is considered as one of the most vulnerable nations internationally due to its geographical position and is experiencing recurrent natural disasters. Communities in coastal areas, such as Satkhira, are under threat by cyclones, flooding, saline intrusion, Waterloging and riverbank erosion. Effective communication encompasses an essential role in mitigating disaster vulnerability by enhancing risk awareness, preparedness, and community resilience. This study analyzes the communication approaches employed by the non-governmental organization (NGO) Shushilan for disaster risk reduction (DRR) in Satkhira, Bangladesh. A qualitative case study approach was employed, selecting 100 respondents, with data collected alongside 10 Key Informant Interviews (KII) with organizational officials. The nature of disaster-related communications were assessed by content analysis of Shushilan's training materials, documents, and communication channels. Results demonstrate that, when utilized effectively, participatory and two-way communication approaches can significantly enhance community preparedness and adaptive capability. Shushilan's utilization of the local language for awareness initiatives, community gatherings, and folk and local media has effectively integrated scientific knowledge with personal experience.These commu nication methods enhance awareness, foster unity, and promote disaster preparedness at the grassroots level. However, factors such as project duration, financial constraints, and infrastructure barriers restrict the sustainability and scope of interventions. Communication is not merely an exchange of information; it is a developing process that increases capacity, fosters cooperation, and builds enduring resilience in disaster-prone areas such as Satkhira.



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## Introduction:-

Bangladesh is acknowledged as one of the most disaster-prone countries in the world because of its position, low-lying deltaic landscape and susceptibility to climate-induced disaster. Located at the confluence of the Ganges, Brahmaputra and Meghna rivers, floods, cyclones, storm surges, bank erosion of rivers and salinity ingress are common in the country (Eckstein et al., 2021). Bangladesh is still suffering heavy economic and social losses from those disasters. Recent studies have shown that the economic loss due to climate-induced disasters is nearly 3 billion USD annually in Bangladesh, impacting over 6.3 million people each year, which represents a significant burden on the country's development and resilience against climatic vagaries (Germanwatch, 2025; The Business Standard, The Business Standard Company Ltd., 2025). In August 2024, heavy rains flooded forced over 500.0001 people from home affected about 5.8 million residents and led to an estimated Tk144 billion (USD 1.2 billion) in damages to properties and crops in northeaster and southeaster Bangladesh (UNB, 2024).The losses are due to frequent flooding that lowers large areas, destroys infrastructure and agricultural lands, and disrupts local economy activities especially in the coastal and low-lying areas where sea level rise and salinity intrusion remain high. Repeating nature of such calamities has also put financial stability in Bangladesh under stress and complicate costs of climate change, external debt (The Daily Star, 2025).

All these risk factors are intensified in the coast, particularly the Satkhira district where people earn their income from climate dependent natural resources. Repetition of disaster events along with human activities has enlarged the strain on socioeconomic vulnerabilities, especially in vulnerable coastal communities necessitating for effective approaches underpinning Disaster Risk Reduction (DRR) (Morrison et al., 2018).Communication serves as essential in mitigating risks of disaster to enhance understanding, preparedness, and community resilience. Effective communication is crucial for facilitating the timely dissemination of information and preparedness behavior , as well as improving connection among stakeholders (UNDRR, 2020). Alongside early warning systems, participatory and community-based communication practices enable local populations to comprehend risk and collaboratively implement adaptation and preparedness measures. Currently, NGOs play a crucial role in aligning scientific knowledge with local contexts and facilitating opportunities for engagement (Seddiky et al., 2022). Shushilan, a prominent NGO in coastal Bangladesh, has executed a series of communication-focused initiatives to enhance disaster preparedness and resilience in the vulnerable areas of Satkhira. Shushilan conducts community meetings, engages with local media, provides training, and enhances visibility to promote knowledge transfer and include risk-informed decision-making at the community level. Given the continued emphasis on people and learning to manage local knowledge, such interventions are aligned with global DRR frameworks (UNDRR 2015). In the light of this the study aims to investigate the use of communication channels for disaster risk reduction, utilizing Shushilan's work in the Satkhira District. The study focuses on how and to what extent different channels have been used toinfluence awareness, preparedness, and community capacity building.

**Conceptual Understanding: Shushilan,Disaster Risk Reduction (DRR)**

### Shushilan

Shushilan is a national non-governmental organization founded in 1991 that operates programs throughout Bangladesh, focusing on DRR and humanitarian assistance especially in coastal areas. The institutional framework comprises a specialized Disaster Management/Risk-Reduction unit that organizes preparedness, early warning communication, capacity building, and emergency response initiatives in coastal regions susceptible to disasters (Shushilan, n.d.). Shushilan designs and facilitates the execution of disaster management strategies at the union and upazila tiers, assists local disaster committees, and creates regional contingency and preparedness facilities. These initiatives seek to enhance local governance and community ownership of DRR strategies to ensure ongoing preparedness at the grassroots level. The organization instructs community volunteers, municipal officials, and women's and youth organizations in early warning interpretation, evacuation procedures, first aid, and household preparedness. Moreover, the organization prioritizes two-way communication to ensure that warnings and local expertise collaboratively guide actions (Shushilan, n.d.; Shushilan, 2017; Shushilan, 2024).

### Disaster Risk Reduction (DRR)

DRR is a systematic approach to identifying, assessing and reducing the risks of disaster. It covers measures to reduce vulnerability and risk factors at the institutional, community, and individual levels in order to anticipate, handle, cope with or recover from disasters. Unlike emergency response, which tends to be dominated by a reactionary approach and after-the-fact intervention, DRR focusses more on breaking the cycle of vulnerability and exposure (UNDRR, 2015).In the study, DRR encompasses mitigation (minimizing the impact of disasters on both

human and physical environments), preparedness (implementing appropriate measures during emergencies), and prevention (avoiding the occurrence of incidents) in order to reduce disaster risk.

## Literature Review:-

DRR is increasingly characterized as a development issue and not just a humanitarian concern. The Sendai Framework for Disaster Risk Reduction (2015–2030) supports this approach by prioritising inclusive governance, risk-informed development planning and improved communication to help build resilience at all levels (UNDRR, 2015). Communication is widely recognized as a vital part of DRR. Multiple studies have emphasized the importance of communication and media in DRR across several nations, including Bangladesh. Effective communication is crucial in mitigating vulnerability by shaping individuals' views on risks, enabling prompt actions via early warnings, coordinating support, and promoting recovery and resilience development (IFRC, 2023). In Bangladesh, a country particularly vulnerable to disasters, the problem involves not only disseminating warnings but also ensuring that communications effectively reach varied and sometimes distant people in a manner that is both actionable and culturally relevant (Ali, 2023). Maidl and Buchecker (2015) claimed that one-way communication is frequently unsuccessful, highlighting the need for information to be consistently delivered and modified to address the distinct requirements of diverse target audiences regarding content and techniques of delivery. Successful DRR programming involves community involvement, inclusion, and enduring learning processes that are frequently realized through community mobilization, local risk studies, preparedness planning and ongoing awareness raising (Twigg 2015). Later literature on communication vulnerability also shows that failure in the functionality of a communication systemfor example, lack of trust, miscommunication, poor choice of channel and/or exclusion of marginalized groups can directly undermine preparedness and response even if information is available on hazards (Hansson et al., 2020).

In the aggregate, these views imply that DRR communication should focus on listening, feedback and community leadership especially in a disaster prone environment. In a coastal context such as Bangladesh, effective communication is crucial, as risks from cyclones and floods necessitate rapid interpretation of warnings and prompt implementation of protective measures. Evidence from cyclone risk mitigation programs indicates that community-oriented preparedness initiatives (including volunteer networks, training sessions, and early warning systems) can enhance household resilience and reduce losses (Ahmed, 2016). The policy-oriented analysis in Bangladesh indicates that while national disaster risk reduction frameworks are progressively supported by a people-centered and community-based approach, there is a necessity to reconcile the disparity between policy and practice at the local level, where local institutions, relationships, and communication capacity are vital for success (Azad, 2019). In this policy and practice context, NGOs serve as essential mediators, disseminating technical risk information into practical local guidance and facilitating the mobilization of community platforms (Ahmed, 2016; Azad, 2019). Nonetheless, the scholarly research is very limited in elucidating how specific NGO communication initiatives (e.g., courtyard meetings, utilization of local media, message in local languages, and feedback mechanisms) combine affect awareness, trust, and ongoing preparedness in Satkhira. A concentrated case study of Shushilan'scommunity-based communication can enhance the DRR communication literature by identifying the specific communication practices that are most effective, the constraints involved, and the reasons for their efficacy in mitigating vulnerability in disaster-prone coastal areas of Bangladesh.

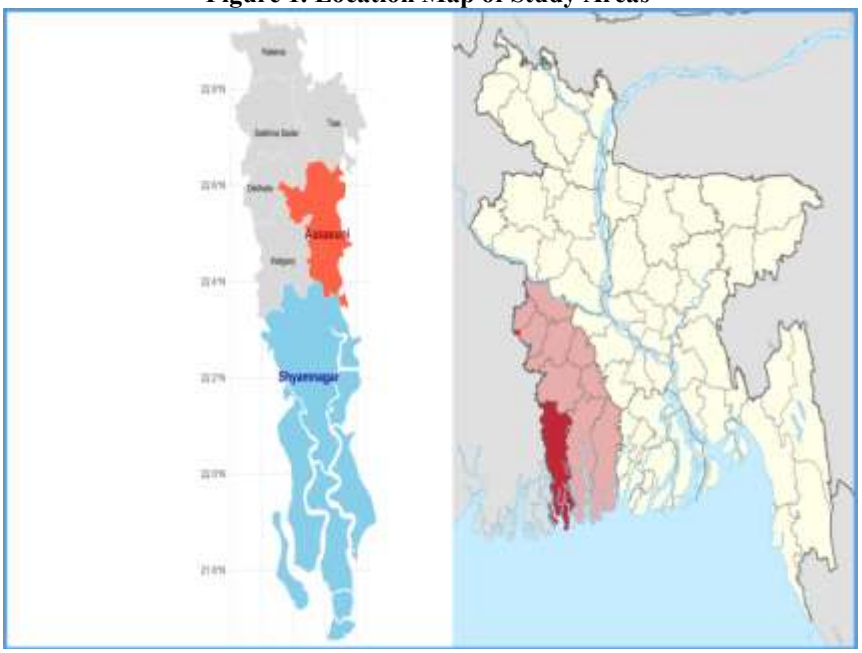
According to The Uses and Gratifications (U&G) theory, the usage of media from an audience-centric viewpoint, asserting that individuals are proactive agents who intentionally choose media to fulfill particular needs, including information gaining, safety, social connectivity, and personal identity (Katz et al., 1973; Rubin, 2009). Within the framework of DRR (DRR), this theoretical perspective is especially relevant as people vulnerable to disasters do not only passively accept warnings; rather, they proactively select communication channels that they regard as credible, accessible, timely, and socially integrated.From a U&G theory perspective, small media such as community meetings, folk performances, posters, local radio, and loudspeakers address cognitive and integrative needs, particularly in contexts where literacy, digital access, or trust in formal institutions is limited (Islam &Walkerden, 2014).New media, including mobile phones, SMS alerts, social media platforms, and internet-based applications, provide various gratifications related to speed, personalization, and autonomy. Studies in Bangladesh and other disaster-prone regions show that younger, more educated people are using mobile-based early warning systems and social media updates more and more because they can get real-time updates, visual content, and verification from multiple sources (Rahman et al., 2020; Hasan et al., 2022). These gratifications enhance users' perceived control over risk situations, thereby reinforcing preparedness behaviors like early evacuation and asset protection.In the study areas where Shushilan functions, communities deliberately employ both small media (such as courtyard

gatherings, folk drama, posters, and community radio) and new media (including Facebook pages, WhatsApp groups, and YouTube) to disseminate DRR messages. According to the U & G theory, individuals in disaster-affected coastal areas actively use media that most efficiently meets their immediate and actual needs for DRR knowledge.The media's use and the gratification experienced by affected individuals in relation to message reception on DRR are analyzed based on the U&G theory.

## Materials and Methods:-

In this research, a qualitative case-oriented approach was taken to investigate the role of community-based communication in DRR in coastal Bangladesh. The study took place in two upazilas namely Shyamnagar and Assasuni (both belonging to a disaster-prone coastal area in the country's south-western region), which are part of Satkhira district (Figure-1). These areas were chosen specifically because of their repeated exposure to cyclones, floods, salinity intrusion and other climate related disaster as well as the long-standing presence *Shushilan*in implementing DRR interventions.

**Figure 1. Location Map of Study Areas**




**Source:Prepared by the researchers, 2025**

A hundred respondents were included in the study. This comparison approach provided a deeper insight into the communication effects across two exposure situations. Primary data was gathered by using qualitative survey and KIIs. For the qualitative survey, both structured and semi-structured questions (with a combination of open-ended/open-response and closed items) were used to access participant's perceptions, experiences and awareness with regard to disaster preparedness planning and communication. 10 KIIs were also carried out with Shushilan functionaries and field-level implementers to understand about institutional strategies, communication approach and implementation impediments.In addition to the primary data collected, a content analysis of Shushilan's communication materials through training manuals, awareness materials, and project reports was performed to explore disaster-related messaging including types of messages (nature), levels of coherence in the messaging (consistency), and content of messages (thematic focus). Secondary data was also obtained from document review including books, academic journals, policy papers and technical reports. Thematic data analysis was then applied to qualitative data

## Result and Discussion:-

Various types of disasters occurred frequently in the study's locations. Consequently, Shushilan's disseminated DRR messages address various challenges related to these specific disasters. Shushilan's DRR messages focus on enhancing community preparedness to reduce disaster risks with community based communication. Their messages

typically encompass early warning communications, safe evacuation instructions, and household preparedness plans as non-structural mitigation[1] approaches.

## Messages Construction with Participatory Approaches

Shushilan'sdevelopment of messages for DRR follows a participatory approach to avoid local communities being only the receivers but active contributors of their own disaster-related messages. Through community meeting, focus group discussions, and discussions with community leaders, Shushilan incorporates local perceptions of risk into its DRR messages using indigenous knowledge and lived experiences. This inclusive process allows for messages to become culturally appropriate, comprehensible, and contextually relevant. Inclusion of vulnerable groups in message development and dissemination (e.g., women, farmers and fishers) Shushilan ensures community ownership, trust and receptiveness. During community meetings, affected people identify the most possible disasters, and they estimate the losses for persons, homes, roads, crops etc. in case a movie-like disaster occurs. They also work with staff and volunteers at NGOs to identify the possible causes of these disaster-related damages. In this way, Shushilan prepares DRR messages for sharing. As such, the communication will be more efficient for raising awareness, early warning reporting, and long-term resilience against disasters.The messages in the table below were created by Shushilan with assistance from community members.

**Table 1. The DRR Messages by Shushilan**

<table>
<tr><th>1. Potential Disaster</th><th>2. Potential Risk</th></tr>
<tr><td rowspan="4">1.1. Cyclone<br><br>1.2.Riverbank erosion<br><br>1.3. Salinity<br><br>1.4.Flood and Water logging</td><td>2.1. Roads and communication systems have been damaged.<br>2.2. Displacement has occurred due to housing destruction.<br>Gher (shrimp farms), Veri (constructed clay barriers surrounding shrimpfarms), and surrounding plants have sustained damage.<br>2.3. Rivers are eroding fertile agricultural land, diminishing agricultural productivity, and increasing the incidence of landlessness.<br>2.4. Livelihood-related productive assets, including boats, agricultural machinery, and seeds, have been damaged.</td></tr>
<tr><td>3. Preparedness, Mitigation and Prevention</td></tr>
<tr><td>3.1. Locate a close secure shelter, union council, or elevated embankment, and identify the best accessible way toreach the identified shelter.<br>3.2. Observe the situation by tuning into radio communications during cyclone warning and forecast notifications.<br>3.3. Build residences, tube wells, and sanitation facilities on elevated terrain.<br>3.4. Dial 1090 (toll-free) for updates on cyclone conditions to facilitate informed decision-making. Based on prior notification, safeguard valuable papers, documents, currency, and jewels in a secure area.<br>3.5. Establish tree plantings adjacent to Gher (shrimp farms) and Veri (built clay barriers encircling shrimp farms), in addition to roadsides and residential properties.</td></tr>
</table>

**Source:** Field Study, 2025(**Note:** The messages have been translated from Bengali Language.)

LikeShushilan's practice, although research on participatory DRR suggests that communities can generate messages to be trusted and acted upon by 'threading' information created together about disaster, vulnerabilities, and local capacities (Shaw 2014). Similarly, Lempert et al. (2023) demonstrate how participatory co-design can remake not just the content but also the governance of warning communication, working alerts, and risk information around community values and local intelligence, thereby strengthening acceptance and utilization. From a message development perspective, Chen et al. (2023) argue that participatory design can help to result in better emergency messages by including perspectives from "message senders" and other stakeholders in templates and tools, which is

[1]Non-structural mitigation involve techniques which reduce risk by influencing human behavior or natural processes, supported by community awareness and educational initiatives, including public education programs, pre-disaster risk reduction practices, disaster detection and analysis, warning systems, technical monitoring, comprehensible warnings, and risk mapping (Pancasilawan, 2020).

intended to result in clearer, more actionable messaging."Rabeya, a housewife and survey respondent from the study area, shared her experiences receiving messages from Shushilan: "At times of the year when disasters are more likely to occur, the representatives of Sushilan come in advance and sit in the yard to speak with us. They ask about the problems we face during disasters. They come back later to provide guidance on what we should do before, during, and after disaster. Occasionally, they invite us to join discussions at the union council."Rabeya's comments highlight the involvement of community members with Shushilan.Not only did Rabeya express this view, but Achia, a housewife, and Saleha, a day laborer, also shared the same opinion.

**Figure 2. The Small Media Used by Shushilan**


**Source:** Field Study, 2025

## Utilization of the local language

Shushilan's DRR messaging practice such as early warnings, evacuation plans, and preparedness advice utilizes the everyday language of the community to ensure that instructions are both immediately understandable and culturally relevant. This approach facilitates distribution through informal networks, including volunteers, neighbours, and religious institutions. This is in line with community-based DRR advice, which says that messages should be made simpler in the local language, kept short and clear, and made to encourage action to get people involved and take ownership (SOLIDARITÉS INTERNATIONAL, 2019). In contrast, published studies have indicated that cyclone warnings are often communicated in an "official" language, such as Bengali, which is not well-suited for local oral communication during cyclones (Ferdous 2017). This can impede both comprehension and prompt responses. Recent research in DRR risk communication emphasizes that effectiveness is not achieved through literal translation; instead, messages must be culturally adapted and delivered in trusted local languages and voices to resonate with the community and prompt action (UNDRR, 2025). Additionally, evidence from an early flood warning context in Bangladesh indicates that communities need clear and concrete guidance for practical preparations, which can be enhanced by using localized language (Hasan& Islam, 2024). In summary, Shushilan'sincorporation of local languages aligns with best-practice guidelines, addressing some gaps identified in previous warning-system literature by emphasizing understanding, credibility, and rapid peer-to-peer dissemination. This approach should also reduce confusion regarding signal numbers, routes, shelters, and timing. Once, while delivering a message to a woman affected by a disaster, Upazila Coordinator TaposKumer Dash's words highlighted the simplicity of their language:"ChobironerMaaageejodiamerkothasunte, talipareki r aikhotitahoto."- In Bengali.

(The English Translation of this Sentence is 'If you had listened to us earlier, how might this loss have happened for you?"

**Uses Small Media with Participatory Approaches**

Shushilan's use of small media banners, posters, pamphlets/booklets, flashcards, Risk maps, miking, mock drills, pot songs (a traditional folk song), picture-plays, street theatre, and courtyard meeting is indicative of a multi-channel, low-cost, community-based communication approach that is particularly well-suited to settings where literacy rates are mixed and the speed with which diffusion occurs matters.Miking, which involves the use of microphones and loudspeakers, is an effective and widely used communication tool, especially in the coastal regions of Bangladesh, implemented by Shushilan. Shushilan's cultural team prepares the Pot song, a traditional folk performance that integrates storytelling, music, and rhythm in coastal regions before disasters. They employ Pot songs to share risk information in an engaging and culturally relevant manner. These songs pertain to cyclone alerts, safe shelter, and family preparedness. Additionally, Shushilan employs a small media initiative called Picture Play to combine performance with visual components (such as images, posters, and symbolic objects) to illustrate disaster dangers and their respective solutions. The courtyard sessions, facilitated by Shushilan, offer avenues for discussion and learning. These are small, localized events typically conducted in outside residential or communal spaces, requiring accessibility for women, the elderly, and other at-risk populations. Courtyard meetings function as an unstructured yet effective approach for conveying essential information regarding disaster preparedness.

***Figure 3. The Small Media Used by Shushilan***


**Source:** Field Study, 2025

Figure 3 shows small media such as leaflets, panas, and posters. The poster conveys the message: "Higher yields, more rice due to better water management" and "Plants trees beside Veri (lay barriers encircling shrimp farms) to protect from harm". In addition, the leaflets illustrate the main idea of disaster.

BiddutKumerMondol, a teacher and survey respondent from the intervention group in the study area, shared his experiences about how they receive information from Shushilan: "Before a disaster, we receive important messages

through miking. Additionally, we receive information via posters, leaflets, and banners provided by Shushilan. Occasionally, Shushilan conducts disaster drills in the school's large field, where community members participate"

The organization conducts mock drills for cyclone preparedness in certain coastal areas before cyclone occur. Community volunteers, students, women, and members of the Union Disaster Management Committee (UDMC) engage in these drills. These drills enhance response capabilities, lessen fear, and foster collaboration between non-governmental organizations and local authorities. Posters are utilized to communicate messages related to DRR initiatives. These posters often contain visual directives on actions to be undertaken in anticipation of cyclones, waterlogging, or floods. They also offer evacuation routes, secure shelter sites, and household preparedness techniques, including emergency kits, food storage, and first aid supplies. The posters highlight crops resistant to salinity, home gardening, and water management methods. The use of small media, such as pot songs, picture plays, and street theatre, involves active participation and performance from community members.

**Figure 4. The Small Media Used by Shushilan**


**Source:**Field Study 2025(**Note:** The picture of the mock drill and picture play captured from the video.)

When community members are engaged as co-designer in the production of print visual materials those visuals produce results based on shared cultural experiences. This participatory process guaranteed that the posters were clear to the eye and also to the heart, as well as actionable for those who should use them by embedding lived experiences and locally shared narratives in their designs (Feliscuzo& Cayamanda, 2025). Community theatre, as risk communication tool, has also been empirically tested to result in increased public awareness and perception of knowledge on hazards and social commitment to risk reduction. This underscores the importance of interactive and culture-based performing arts in DRR (Bubeck et al., 2024). Risk maps were the small- to medium-sized stick on art that was printed. Recent research has shown that when people have access to and comprehensibly understand risk maps, these can change the way in which they perceive risks and their subsequent willingness to deal with them (Pedoth et al., 2025). Ali (2023) demonstrated that both formal media (e.g., radio, television) and non-media outlets (such as interpersonal networks involving neighbors, friends and local institutions), are important in spreading messages regarding disasters, particularly within the context of low trust and high accessibility of sensitive information sources such as WhatsApp, mobile phones, or community conversations. This also corresponds with the role of courtyard-situated activities and mock drills, which provide a media-free space for communication that situates DRR messaging within local social structures, encourages dialogue, and helps community members to collectively learn what practical preparedness actions are capable of. Through the blending of small media approaches with participatory drills and gatherings, DRR interventions can facilitate better comprehension and

community acceptance of risk reduction actions. The findings indicate that integrating visual (such as maps and performances), auditory (including miking and songs), and experiential (like drills and theater) tools can significantly improve the reception of last-mile DRR messages and enhance community preparedness.

## Two-way Communication

Recognizing the significance of interpersonal and group communication, Shushilan utilizes field supervisors and volunteers for one-on-one and group interactions, engages opinion leaders including religious figures, educators, and local government officials, and employs peer leaders from families, youth, and religious communities. Interpersonal communication is a fundamental mode of communication that signifies direct, face-to-face, or mediated interaction between two or more individuals. This communication strategy is more effective in facilitating exchanges and fostering trust between the target audience and professionals (Westmyer et al., 1998). Moreover, Shushilan organizes community gatherings and academic program via group communication. Unlike mainstream media, it is interactive, dialogic, and typically conducted in person, makes it particularly effective for spreading DRR messages. Firoza, a housewife and survey respondent from the intervention group in the study area, explained her experiences regarding Shushilan.During disasters, representatives from Shushilan come to our homes to raise awareness. They inform us about what we should prepare in advance and where to go in case of a disaster. They make an effort to explain this information to us repeatedly in simple language."Firoza's statements emphasize the two-way communication with the community residents of Shushilan. Firoza, along with Md. Usuf Ali (teacher) and Md. Sahidullah (Imam and teacher), had a similar viewpoint. Nevertheless, the participants from the non-intervention group did not emphasize participation as significantly.

**Figure 5. The Small Media Used by Shushilan**


**Source:** Field Study, 2025

In DRR dissemination, group communication facilitates communities in collaboratively identifying threats, conceptualizing coping options, and executing preparedness measures. It emphasizes the advantages of two-way communication compared to top-down approaches (Shaw et al., 2010).Ali et al. (2021) indicated that, alongside one-way communication, two-way interactions facilitated by active engagement with specific community members and discussions regarding their concerns and preferences in decision-making effectively promote preparedness actions, rather than only informing individuals about approaching disasters. Vollmer (2025) asserted that this form of communication enables interactive feedback systems, allowing populations to convey real-time observations and demands, prompting authorities to promptly adjust messages.The Uses and Gratifications (U&G) theory gets media audiences as active participants who choose certain ways to communicate to meet their needs (Katz et al., 1973). *Shushilan's* Disaster Risk Reduction (DRR) communication approach integrates small media such as courtyard meetings, community volunteers, local leaders, and folk media—with social media and mobile platforms. This method strongly corresponds with Uses and Gratifications (U&G) theory, since it offers multiple options for impacted persons to meet their diverse and changing needs throughout the preparedness, reaction, and recovery stages.Minor media are essential to Shushilan's DRR initiatives, particularly in coastal and rural areas where low

literacy, digital disparity, and marginalization influence media choices. From a U& G perspective, local community members utilize social media to satisfy cognitive requirements (enhanced risk comprehension) and integrative needs (increased trust, reassurance, and social cohesion). Face-to-face communication allows impacted individuals to pose inquiries, comprehend alerts, and express their particular vulnerabilities, like loss of income, housing damage, handicap, or food insecurity. Meeting the demand for personal significance and problem-solving material is a core tenet of U&G theory (Blumler& Katz, 1974).Examination using the framework of U & G theory, Shushilan's DRR communication technique exemplifies an audience-centric and needs-responsive approach. Through the utilization of both small media and social media, Shushilan empowers disaster-affected individuals to proactively seek information, articulate their specific needs, and obtain customized support. This method not only improves communication efficacy but also bolsters trust, engagement, and adaptability, essential elements of sustainable DRR

## Conclusion:-

This study emphasizes community based communication using participatory and two way communication approach es to enhance DRR initiatives in highly vulnerable coastal areas like Satkhira, Bangladesh. The findings indicate that Shushilan's community-centered communication technique characterized by the utilization of local language, culturally relevant messaging, and inclusive participation has markedly improved community awareness, readiness, and adaptive skills. Nonetheless, restricted project time, financial limits, and infrastructural deficiencies persistently hinder the viability of these communication projects. Despite these constraints, the study demonstrates that effective DRR communication is not only a technological endeavor; it is also a social process that fosters trust, collaboration, and resilience within the community. Enhancing disaster resilience in climate-vulnerable regions such as Satkhira implies reinforcement of long-term institutional support, the expansion of participatory approaches, and an assurance of ongoing community engagement.

## Reference:-


1. Ali, T., Buergelt, P. T., Paton, D., Smith, J. A., Maypilama, E. L., Yuŋgirrŋa, D., ...&Gundjarranbuy, R. (2021). Facilitating sustainable disaster risk reduction in Indigenous communities: Reviving Indigenous worldviews, knowledge and practices through two-way partnering. International journal of environmental research and public health, 18(3), 855.
2. Ali, Z. S. (2023). Media and non-media sources for disaster risk reduction. Online Journal of Communication and Media Technologies, 13(3), e202322. https://doi.org/10.30935/ojcmt/13095Ahmed, B. (2016). Community resilience to cyclone disasters in coastal Bangladesh. Sustainability, 8(8), 805.
3. Azad, M. A. K. (2019). A policy approach to people-centred risk reduction in Bangladesh. Asia Pacific Viewpoint.
4. Blaikie, P., Cannon, T., Davis, I., & Wisner, B. (2005). At risk: Natural hazards, people's vulnerability and disasters (2nd ed.). Routledge.
5. Bhowmik, J. (2024). Assessing climate change-induced losses and damages to ecosystem services on a coastal island of Bangladesh.
6. Blumler, J. G., & Katz, E. (1974). The uses of mass communications: Current perspectives on
7. gratifications research.
8. Bubeck, P., Pham, T. D. M., Nguyen Thi N. A., & Hudson, P. (2024). Disaster risk reduction on stage: An empirical evaluation of community-based theatre as risk communication tool for coastal risk mitigation and ecosystem-based adaptation. Progress in Disaster Science.
9. Chen, T., Gil-Garcia, J. R., Burke, G. B., &Werthmuller, D. (2023). Enabling effective emergency message writing through technology: A participatory design approach. EGOV-CeDEM-ePart 2023.
10. Eckstein, D., Künzel, V., Schäfer, L., &Winges, M. (2021). Global Climate Risk Index 2021: Who suffers most from extreme weather events?Germanwatch. https://www.germanwatch.org/en/19777
11. Feliscuzo, Q. B., &Cayamanda, K. J. G. (2025). Audience as co-designer: Participatory designed posters for flood awareness and preparedness.City and Built Environment, 3, Article 20. https://doi.org/10.1007/s44213-025-00059-2
12. Ferdous, M. (2017). Cyclone warning in Bangladesh and people's response (Master's thesis, BRAC University).
13. Germanwatch. (2025). Climate Risk Index 2025. https://germanwatch.org/en/19777
14. Gaillard, J. C., & Mercer, J. (2013). From knowledge to action: Bridging gaps in disaster risk reduction. Progress in Human Geography, 37(1), 93–114. https://doi.org/10.1177/0309132512446717

15. Hasan, M. M., & Islam, M. N. (2024). Effectiveness of flood early warning for the Jamunachar-dwellers at Sirajganj District in Bangladesh. Progress in Disaster Science, 22, 100373.
16. Hasan, M. M., Hossain, M. A., & Rahman, M. M. (2022). Mobile phone–based early warning
17. systems and disaster preparedness in coastal Bangladesh. International Journal of
18. Disaster Risk Reduction, 74, 102932. https://doi.org/10.1016/j.ijdrr.2022.102932
19. Hansson, S., Orru, K., Torpan, S., Bäck, A., Kazemekaityte, A., Meyer, S. F., Ludvigsen, J., &Savadori, L. (2020). Communication-related vulnerability to disasters. International Journal of Disaster Risk Reduction.
20. Islam, R., &Walkerden, G. (2014). How do links between households and NGOs promote
21. disaster resilience and recovery? A case study of Bangladesh. Natural Hazards, 75(2), 1707–1727. https://doi.org/10.1007/s11069-014-1376-5
22. IFRC. (2023). World Disasters Report 2022. International Federation of Red Cross and Red Crescent Societies. https://www.ifrc.org/document/world-disasters-report-2022
23. Katz, E., Blumler, J. G., &Gurevitch, M. (1973). Uses and gratifications research. The Public
24. Opinion Quarterly, 37(4), 509–523. https://doi.org/10.1086/268109
25. Lempert, R. J., Dean, D. J., Groves, D. G., Molina-Perez, E., Arnold, J. R., &Bakkensen, L. (2023). Community-level, participatory co-design for landslide warning with implications for climate services. Sustainability, 15(5), 4294.
26. Maidl, E., &Buchecker, M. (2015). Raising risk preparedness by flood risk communication. Natural Hazards and Earth System Sciences, 15(7), 1577-1595.
27. Mercer, J., Kelman, I., Taranis, L., &Suchet-Pearson, S. (2010). Framework for integrating indigenous and scientific knowledge for disaster risk reduction. Disasters, 34(1), 214–239. https://doi.org/10.1111/j.1467-7717.2009.01126.x
28. Morrison, A., Noble, B. F., & Westbrook, C. J. (2018). Flood risk management in the Canadian prairie provinces: Defaulting towards flood resistance and recovery versus resilience. Canadian Water Resources Journal/Revue canadienne des resources hydriques, 43(1), 33-46.
29. Pedoth, L., et al. (2025). Impacts of hazard maps on individual risk awareness, risk perception and willingness to engage in risk management activities. International Journal of Disaster Risk Reduction.
30. Rahman, M. S., Hossain, M. A., & Rahman, M. M. (2020). Social media and disaster
31. communication: A study of cyclone early warnings in Bangladesh. Information
32. Development, 36(3), 408–423. https://doi.org/10.1177/0266666919879024
33. Rubin, A. M. (2009). Uses-and-gratifications perspective on media effects. In J. Bryant & M.
34. B. Oliver (Eds.), Media effects: Advances in theory and research (3rd ed., pp. 165–
35. 184).
36. Seddiky, M. A., Giggins, H., &Gajendran, T. (2022). Non-DRR NGOs strategies for livelihood development in the coastal communities of Bangladesh: a case study. Natural Hazards, 111(2), 2155-2175.
37. Servaes, J., &Malikhao, P. (2010). Advocacy strategies for health communication. Public Relations Review, 36(1), 42–49. https://doi.org/10.1016/j.pubrev.2009.08.017
38. Shaw, R., Pulhin, J. M., & Pereira, J. J. (Eds.). (2010). Climate Change Adaptation and Disaster Risk Reduction: Issues and Challenges.
39. Shaw, R. (2014). Community-based disaster risk reduction. Emerald Group Publishing
40. Shushilan. (n.d.). About us / Shushilan at a glance. Retrieved from https://shushilan.org/
41. Shushilan. (2017). Annual disaster cell report 2016–2017 [PDF]. Shushilan.
42. https://shushilan.org/assets/pdf/Annual-Cell-Report-2016-2017.pdf
43. Shushilan. (n.d.). Risk Reduction and Humanitarian Response Unit. Retrieved from
44. https://shushilan.org/risk-reduction-and-humanitarian-response-unit
45. Shushilan. (2024). Running project list (updated 16 April 2024) [PDF]. Shushilan. https://shushilan.org/assets/pdf/Runnng%20Project%20Lis_%20updated_16%20.4.2024.pdf
46. SOLIDARITÉS INTERNATIONAL. (2019). Community-based disaster risk reduction(Guidance note). SOLIDARITÉS INTERNATIONAL
47. The Business Standard. (2025, February 18). Bangladesh faces $3b annual disaster loss, 6.3m affected. https://www.tbsnews.net/bangladesh/environment/bangladesh-faces-3b-annual-disaster-loss-63m-affected-1071386
48. The Daily Star. (2025, October). How climate change affects Bangladesh's debt?https://www.thedailystar.net/environment/climate-crisis/natural-disaster/news/climate-debt-storm-threatens-financial-stability-4013546

49. Trogrlić, R. Š., Duncan, M., van den Homberg, M., Adeloye, A. J., Mwale, F., & Wright, G. (2022). Why does community-based disaster risk reduction fail to reduce risk? International Journal of Disaster Risk Reduction.
50. Twigg, J. (2015). Disaster risk reduction (Good Practice Review 9). Overseas Development Institute.
51. United Nations Office for Disaster Risk Reduction (UNDRR). (2015). Sendai framework for disaster risk reduction 2015–2030. https://www.undrr.org
52. United Nations Office for Disaster Risk Reduction (UNDRR). (2020). Human cost of disasters: An overview of the last 20 years (2000–2019). https://www.undrr.org
53. United Nations Bangladesh. (2024, August 30). Bangladesh: Eastern Flash Floods 2024 Situation Report No. 02. United Nations. Retrieved from https://bangladesh.un.org/en/277637-bangladesh-eastern-flash-floods-2024-situation-report-no-02
54. United Nations Office for Disaster Risk Reduction (UNDRR). (2025, June 6). Risk communication is essential for disaster risk reduction.
55. Vollmer, M., Overmeyer, M., &Kaluza, B. F. (2025). Enhancing two-way communication in disaster management in the EU—practical insights. Frontiers in Communication, 10, 1557423.
56. Westmyer, S. A., DiCioccio, R. L., & Rubin, R. B. (1998). Appropriateness and effectiveness of communication channels in competent interpersonal communication. Journal of communication, 48(3), 27-48.