

COMMUNITY RADIO AND PEOPLE'S SAFETY FROM CYCLONE IN BANGLADESH

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Abstract

This study has assessed the capacity of four community radio stations, located along the coastal areas of Bangladesh in regards to campaign strategies of cyclonic disasters. Examining the programme contents, effects of messaging, and drawbacks of their broadcast strategy this study reveals that although radio listenership has been dropped dramatically among commoners, poor people living in isolated coastal areas and nearby islands have trust to community radio campaign in preparedness and evacuation activities to avert deaths and property losses from cyclone and tidal bore. This evidence notes that campaign by community radio has potential in averting immediate danger from cyclone and tidal bore but the capacity of community radio stations are yet to demonstrate disaster friendly readiness due to want of adequate training for broadcasters. It then recommends that a communications plan for disaster campaigns combined with maintaining a network amongst community radio stations before, and during the cyclonic hit would significantly contribute to community safety, a decrease in property damage, and overall morale in the shadow of cyclones.

Keywords: community radio, cyclone, disaster campaign, Bangladesh

Introduction

The densely populated disaster-prone, South Asian country of Bangladesh has always considered early warnings and alerts to be important tools for mobilising resources to manage cyclone emergencies. Raj et al., (2010) for instance, argue that broadcasting information about available emergency aid resources, especially through warning bulletins, help people protect their lives and property from cyclones. The most devastating cyclone *Gorky* hit Bangladesh coast in April 1991, where material damage was about USD 2.4 billion and human casualties numbered around 138,000 (Rahman,1999). Earlier, a similar catastrophe claimed half a million lives in 1970 (Begum, 1993). Although two deadly cyclones similar in size to *Gorky* hit the south-west coast of Bangladesh (super-cyclone *Aila* in 2009 and *Sidr* in 2007) resulting in casualties of 190 and 3,406 lives respectively, owing the lower casualty rate to the early issuing of warnings and the evacuation of around a half million people to safe cyclone shelters.

Evaluating the *Sidr* experience, Rahman (2011:52; quoted in Akhter and Ullah, 2014:4-5) claimed “further lives could have been saved had it not been for the failure to take adequate motivational calls by the warning agency in terms of sheltering until it was too late.” The Bangladesh Disaster Management Bureau (2008) also reported that, in spite of repeated dissemination of warning messages, people opted to stay at home in an attempt to save their belongings. The lesson learned from cyclone *Sidr* regarding their warning is that the information about the severity of the cyclone was not properly understood by everyone. This official statement indicates that although Bangladesh has success stories in terms of cyclone preparedness, community response was not always forthcoming to take shelter after the issuance of warnings during these two cyclones.

Similarly, cyclone *Mohasen* hit the Bangladesh coast in 2013 killing 12 people only. Bangladesh NGOs Network for Radio Communication (BNNRC) (2013) reports that during cyclone *Mahasen*, six community radio stations in the coastal region broadcasted 514 hours of programming for five days continuously and states that the local community would be able to know all the details related to the cyclone and how to take precautionary measures. The report claims this approach saved lives and property, and again proved the essential role of community radio at a grassroots level. Although Bangladesh faced cyclones *Roanu* in 2016, *Mora* in 2017 and *Titily* in 2018 with limited casualties, international bodies such as the International Federation of Red Cross and Red Crescent, UNDP and UNISDR claimed that around seven and a half million coastal people are so vulnerable that they have few defences when facing an imminent cyclone that regularly hit along 710 km coastal areas. In such a situation, media have the power to motivate people to take shelter in cyclone centres¹ built along the coastal region after issuing warnings. Studies and surveys by Raj et al., (2010) and Ullah (2003) reveal that cyclone warning transmissions through radio and television play a significant role in limiting the number of deaths as affected populations adequately prepare after listening to regular and special weather bulletins. After observing Cyclone *Mora*, experts (e.g., Khan, 2017; Morshed, 2017) state that community radio as local media can be a catalyst in minimising the language gap between broadcast and the wider community in the context of cyclonic preparedness.

Evaluating community radio effects in Bangladesh Hasnat and Steyn (2018:74) claim, 'the benefits are self-evident of educating communities to better prepare for severe weather conditions, to better use weather realities ... [and] to protect themselves and their belongings from natural disaster.' Using the VOICE standard as a framework to examine capacity, this study looks at the programme content relating to the disaster campaign of four community radios located in the coastal region and evaluate the impact of those programmes in preparedness and evacuation related measures. In addition, observation of the impact of programmes among poor people and in-depth interviews from station managers, volunteers and users are used as tools for this study. This study argues that community radio has a positive role in motivating 20 million vulnerable people to take refuge in cyclone shelters and saving lives from deadly cyclones who are living isolated coastal villages.

Cyclones in Bangladesh: A Brief History

Bangladesh is ranked as one of the world's most disaster-prone countries, with 97.1 per cent of its total area and 97.7 per cent of the total population at risk of multiple natural disasters, including cyclones. The World Risk Report 2018 ranks Bangladesh as 9th amongst 172 countries and Coastal Risk Index (2014) put its coast at 7th. The START Network and ACAPS (2018) prepared the Bangladesh tropical storm/cyclone *Disaster Summary Sheet* (8 April, 2018) which states that Bangladesh was hit by 154 cyclones, including 53 severe cyclonic storms, 43 cyclonic storms, and 68 tropical depressions between 1877 and 2017. Between 1970 and 2018, the country experienced significant devastation due to 38 severe cyclones. In addition, storm surges, an unusual rise in sea water associated with a tropical cyclone originating in the Bay of Bengal, have also caused major devastation in the coastal region (Alam 2018:28-29; UNDP, 2014; Wikipedia, 2019).

To address disasters from community level, the UN Sendai Framework for Disaster Risk Reduction (2015–2030) highlights the importance of local level institutions as a means for communities to self-organize and build resilience in the face of natural disasters (UNISDR, 2015). Following this framework, Bangladesh has made significant changes to national disaster management policies, including the decentralisation of disaster management to local-level institutions. These restructuring efforts are evident in the National Plan for Disaster Management (2016–2020), Standing Orders on Disaster (SOD) (MoDMR, 2017) and Comprehensive Disaster Management Programme. In fact, over time fewer people have died as a result of cyclones as Bangladesh has focused on resilience-building, preparedness and early warning measures. For instance in 1991 the cyclone *Gorky* killed 138,000 people in Cox's Bazar and Chittagong, but less than 25 people have been killed in each cyclone since 2015 (Choudhury, Uddin & Haque, 2019).

It seems there have been significant improvements in cyclone preparedness, resulting in reduced mortality rates, but Alam (2018) state that areas in coastal Bangladesh are still at risk and people remain vulnerable. Despite good progress in cyclone preparedness, exemplified by the existing comprehensive disaster management policies of the Government of Bangladesh, Alam and Collins (2010) study claims

¹ As of 2018, the Disaster Summary Sheet (April 08, 2018) estimates 3,763 cyclone shelters (each reportedly capable of sheltering up to 5,000 people) are located along Bangladesh coastal and offshore islands.

localised vulnerability factors in cyclones are only partly considered. Studies (e.g., Alam & Collins, 2012; Raj et al., 2010; Paul et al., 2010) claim that community involvement (for instance Cyclone Preparedness Programme -CPP volunteers) in evacuation remains a major focus and self-reliance is considered the key to preparedness, response and recovery. According to Raj et al., (2010) people consult several sources for cyclone announcements with volunteers getting top priority (82.2%), neighbours second (73.8%) and radio coming in at a close third (72%). Meanwhile, some 86.3% of those studied agreed that radio announcements could decrease casualties and loss of property. The study also found 65.3% respondents understood the warning messages, 22.3% said that they could understand partially and just 9.3% answered that they failed to understand the messages due to lack of familiarity with the technical language used, along with general confusion regarding the message and carelessness.

Though around 43 thousand CPP volunteers from the Bangladesh Red Crescent Society played a significant role in the evacuation of vulnerable people prior to the cyclone, Alam, (2018), Choudhury, Uddin and Haque (2019) observe that the early warning and evacuation system is vital in saving lives in Bangladesh from cyclones. However, studies (e.g., Dasgupta et al., 2012; Raj et al., 2010) show that greater precision in forecasting is still needed, particularly regarding cyclone landfall locations and the location of specific inundation depths; broadcasting of warnings in local dialects; and raising awareness to promote timely and appropriate evacuation. Paul, et al., (2010:89) consider the key variables influencing a positive evacuation decision to include (i) a hazard warning system; (ii) the credibility of warning message; (iii) perceived personal risks; and, (iv) the logistics of evacuation.

The aim of the Disaster Management Bureau (BDMB) of Bangladeshi Government is to achieve a paradigm shift in disaster management: from conventional response and relief to a more comprehensive risk reduction culture. In doing so, it underscores capacity building of affected people to create resilience to disasters. This reflects the adoption of the UN's 'Hyogo Framework for Action 2005-2015' in national policies, emphasising the need to reduce vulnerability and promote resilience (Choudhury, Uddin & Haque, 2019). To ensure the effective participation of local communities in compliance with the Hyogo Action Framework, the Government of Bangladesh formulated the Standing Order of Disaster in January 1997 (last updated in 2010). This is primarily a guideline providing detailed descriptions of the roles and responsibilities of all organisations (from national Ministries to the local level) involved in disaster management. Although these initiatives contribute significantly to minimising losses, researchers (e.g., Alam, 2018; Paul et al., 2010) without an in-depth understanding of the underlying vulnerabilities to natural disasters, the basis of local people's perceptions and behaviour, and the goals that they set, disaster reduction strategies are considered unlikely to succeed. The significance of this study therefore lies in how community radio, as grassroots media, contributes to minimising deaths of people and losses of property from cyclone and tidal bores in Bangladesh through broadcast warning and advice on sheltering.

Media, Disaster Campaigns and Community Radio

Media announcements play a significant role in disaster management procedures in regards to the mobilisation of resources in emergency situations. For instance, Nahak's (2018:259) study in Odisha, India reveals that 91% of respondents feel media announcements help them prepare to move to safer locations during the cyclone *Titily* that hit the Odisha coast in October 2018. SEEDS Asia (2009) claims that media can provide timely and factual information, a situational analysis, secondary risk, information about missing people, rescue, relief goods etc; advice about evacuation, tips to get water, address the needs of survivors, medical aid and relief goods; as well as encourage survivors, provide entertainment etc.

Raj et al., (2010) study similarly observes that the dissemination of warning messages relayed via broadcast media have had positive outcomes in terms of reducing casualties in emergency situations. This study however, indicates that attitudes towards mediated warnings held by Bangladeshi citizens differ depending upon their access to media, type of dwelling and differing levels of literacy and suggest, within a Bangladeshi context, that cyclone warning messages must be culturally and linguistically mindful. Lei Guo (2017:127) also asserts that while people are losing faith in mainstream media and becoming increasingly suspicious of online content, they consider community radio as the most trustworthy. The use of community radio in cyclone warning dissemination is a good practice in coastal India (Sanjivani, 2012), rural Indonesia (Birowo, 2009) and islanders in Japan (Kanayama, 2007).

BNNRC (2017) in this context claims, as the urban-based conventional media have limited scope to address cyclone issue adequately during the severe weather condition, community radio can fill that gap. Hibino and Shaw (2014:131) also argue that 'community radio is the ideal tool because it has deep roots in the community' and that it 'has built bonds among the people, and maintains a community identity.' The presence of the community radio in every phase of a disaster is essential for the exchange and sharing of information and dialogue among residents, as well as the enhancement of the community's capability and of self-government ability. Similarly, Hasnat and Steyn (2018:76) consider community radio as an important medium through which communities have 'a voice' through becoming better informed, educated, and more aware about cyclones.

Despite the scope of contribution, Akhter (2018) opines that community radio warnings have not received adequate research attention for understanding disaster campaigns. For example, Kaioum (2019) focused on the role of community radio during the post disaster recovery phase only. Similarly, evaluating the role of Radio Naf in cyclone campaigns, Hasnat and Steyn (2018:74) claim that community radio stations in disaster-prone coastal areas play a significant role for people. These studies, however Akhter (2018) claims, did not focus specifically on evacuation and preparedness and community radio's role, except in observation without any apparent evidences. This study therefore focuses on the effectiveness of community radio announcements and preparedness, mainly evacuation and seeking shelter, immediately before and during the cyclone.

Research Questions and Study Framework

The Government of Bangladesh has placed the media at the centre of their disaster preparation plans to avert casualties from cyclone and tidal bore. A number of chartered responsibilities under the Standing Order for Broadcast Media 1985 replaced by the Standing Orders on Disaster in 1997 (updated in 2010) are vested in the broadcast media immediately before, during, and after disaster situations. Community radio includes radio and television operators who are expected to comply with these responsibilities during various phases of cyclone disaster management. This order specifies that all special weather bulletins, issued by the Storm Warning Centre and broadcast by radio and television channels, should contain information about the location of the cyclone, the estimated central pressure, direction and speed of movement, maximum sustained wind speed, radius of maximum sustained winds, areas likely to be affected, approximate time of commencement of gale force winds (speed of more than 32 mph or 52 kph), maximum wind speed, expected storm surge height and areas most likely to be impacted (MoDMR, 2017).

Empirical studies (e.g., Dasgupta et al., 2014; Raj et al., 2010; Paul et al., 2010; Stevenson, 2013) show that besides the warning announcement, the motivational warning call is the most important factor in the context of evacuation and sheltering. Following the example from Japan, Hibino and Shaw (2014:122) identified four goals of community radio station in disaster management. These four are: (1) the circulation of emergency information (disaster warnings, evacuation advisories, etc.) to secure the safety of disaster victims, (2) providing relief and support related information of local authorities and NGOs, (3) providing information related to recovery plans in the disaster-hit area and promoting the exchange of residents' opinions, and (4) contribute to maintaining the mental and physical health of disaster victims.

Typically, the efficiency of warnings is measured in terms of lives saved and reduction in losses, which are directly related to the execution of an anticipated response by people and institutions once a warning is issued. The Bangladesh Disaster Management Bureau considers the key purposes of creating awareness through radio and television to be: preparing people mentally for the challenges of disaster; reducing panic amongst citizens; and alleviating trauma after a cyclone. Studies by Talukder et al., (1992), Chowdhury et al., (1999) and Ullah (2003) on perception and disaster-related behaviour in Bangladesh reveal however, that lack of self-evacuation and few nearby shelters are the major causes of death. Considering this context the first research question is:

RQ-1: What can community radio do to increase residents' knowledge of disasters immediate before and during a cyclone?

Raj et al., (2010) study results indicate the need for a greater use of media in the task of preparing cyclone warning programmes in order to better connect citizens with disaster prevention infrastructure (e.g.,

the maintenance and use of cyclone shelters during an impending disaster). For them, media still has great potential for the promotion of awareness through transmitting emergency evacuation announcements in a reassuring and calm manner and dispelling myths and rumours through providing timely and accurate updates of an impending cyclone. This study argues that awareness is still the most important variable in reducing the collateral damage associated with cyclone disasters, but also views the broadcast media as retaining an important role in catalysing this awareness and in motivating the community to realise their vulnerability in the face of these extreme climate conditions. This study therefore considers:

RQ-2: How do the selected Bangladeshi community radio stations address preparedness and evacuation of the public in cyclone disasters?

Successful public awareness programmes aimed at changing the mindset and developing the capacities and skills of people will, it is hoped, reduce substantially the number of lives and property lost. Claiming *Bangladesh's early cyclone warning and evacuation system is vital to save lives* Dasgupta et al., (2014:106) admit that the overall quality of cyclone and storm-surge forecasting has improved in recent years; however, the general consensus is that further improvements are needed. These include the need for greater precision in forecasting, especially with regard to cyclone landfall location and location-specific inundation depth; broadcasting of warnings in local dialects; and raising awareness to promote timely and appropriate evacuation. This study intends to assess the capabilities, strategies and effectiveness of community radios in enhancing peoples' engagement in disaster preparedness, the cyclone in particular through asking the question:

RQ-3: What strategies do the community radio stations apply in cyclone campaigns aiming to encourage evacuation and seeking shelter?

Findings arise from scrutinising a weeklong programme content, texts, characteristics of those programmes, capacity of station managers and volunteers in four community radio stations namely, Lokobetar, Radio Krishi, Radio Sagordwip and Radio Naf, situated along the coastline. Besides analysing the programme content and texts, a total of eight in-depth interviews from station managers, listeners' club members along with non-listeners of the studied stations are included in this study. Positioning the VOICE strategy as a theoretical framework, multiple rounds of emic coding of documented data, interview transcripts and field notes are used to frame the results.

Community Radio Stations Studied

The following provides a brief overview of each of the four community radios stations included in this study.

Lokobetar

Lokobetar is the first Bangladeshi community radio station in Barguna going to air on May 27, 2011 with the aim of building public opinion around development issues. Massline Media Centre, a non-profit media training and research organisation engaged in the development sector established this station in Barguna, a deadly cyclone-prone southern district of the country. According to official claims, *Lokobetar* reaches around three million listeners in Barguna and also its two surrounding districts. The station broadcasts six hours of programming between 3.00-9.00 pm daily and continues broadcast round the clock on special occasions, such as during a natural disaster. Hourly, the programme includes (six) news bulletins, live radio shows *Mogo Barguna* (our Barguna), audience participation in the program (over telephone and via SMS) *Hello Barguna*, *Dokhina Hawa* (Southern air-wave), *Roshalo Adda* (funny gossip). Six paid staff members run the daily activities with help from 207 volunteers. *Lokobetar* has 75 listener clubs.

Krishi Radio

Krishi Radio (Farm radio-official name is 'Community Rural Radio') started its journey on January 01, 2012, under the supervision of the Agricultural Information Service (AIS) of the Government of Bangladesh with the financial support of the Food and Agricultural Organisation. The station broadcasts eight hours of programming (9.00 to 11.00 am and 3.00 to 9.00 pm) with an average of 25 different types of programming

every day and a 17 km radius broadcast capacity. The major programming content includes agriculture, trade, fisheries, livestock, forests, environment, education, nutrition, folk entertainment, information technology, local news bulletins, women and children issues, rural development, climate change, and natural disasters. Featured programmes include; *Khet Khamar* (Farm land), *Gowal Ghor* (House of Livestock), *Motso Jibon* (Fisher's Life), *Chader Kona* (Hub in the Moon), *Alor Chhoa* (Touches of Light) and *Ekanto Alapon* (Exclusive Discussion). Ten AIS officials and employees along with 60 volunteers are participate in the running of this station. *Krishi Radio* has 25 listeners clubs and has approximately 175,000 listeners.

Radio Naf

Radio Naf which is named after a river that runs through the area and forms the border between Bangladesh and Myanmar, is located at Teknaf, the farthest locality in the extreme south-east corner of Bangladesh under the sea beach district of Cox's Bazar. The community radio station was launched by the Alliance for Cooperation Legal Aid Bangladesh, a local NGO. This station also broadcasts to approximately one and a half million Rohingya refugee camps across Kutupalong, around a 10 km radius. Currently the station broadcasts development and entertainment programmes for 4 hours a day in two sessions (9 am - 11 am and 7 pm - 9 pm). The station is run by eight staff members and 35 volunteers with 29 listeners' clubs. Approximately 800,000 people listened to Radio Naf programmes during cyclone *Mora*. The featured programmes on Radio Naf (roughly translated from Bangla) include Sound from the Sand, Old Melody, Know How to Save Self, and On the Way to Light.

Radio Sagor Dwip

Radio Sagor Dwip has been established to address the social issues such as poverty reduction and social exclusion at the community level, empower marginalised rural groups in disaster management and catalyse democratic processes including ongoing social development efforts in the island Hatiya. Dwip Unnayan Songstha started the Radio Sagor Dwip project (2014-2017) in collaboration with Japan International Cooperation Agency. Community radio Sagor Dwip was set up on the premises of Songstha with an aim to impact disaster risk reduction practice and capacity building of vulnerable communities on Hatiya Island.

Established on 12 November 2015, the station broadcasts development and entertainment programmes for seven hours a day. The station is run by four regular staff (all female) members and 12 volunteers. The station has 150 listeners clubs, mostly situated in high risk (within two km from the sea shore) zones of the cyclone. Immediately before initiation of this radio a survey among nine hundred inhabitants reveals that 89% of respondents did not listen to radio (Changemaker, 2013:9), but intend to listen to cyclone announcements from mass media. Featured programmes on Radio Sagor Dwip include Few Moments with Music; Come, Know and Save Us, Our Health and Safety etc.

Research Findings

Findings reveal that community radios broadcast people-friendly cyclone alert, preparedness messages and evacuation instructions immediately before and during the hit. Discarding the regular broadcast schedule, all radio station studied keep in operation round the clock with the hourly warning updates and broadcast faith sermons (*Humd* and *Naths*- religion issues). Despite these initiatives, due to inadequate logistics and want of the programme production experience, the VOICE standard could not be followed duly. Thus, the broadcast programmes could not draw ample attention among coastal people. Observation and in-depth interviews from the respondents confirm that campaigns by community radio have potential in averting immediate danger from cyclone and tidal bore but the capacity of community radio stations are yet to be disaster friendly due to want of adequate training for broadcasters. These findings arise from four key issues that comprise - (a) community preparedness and evacuation practice, (b) community radio intervention through programme contents and disaster campaign strategies, (c) capacity building on safety measures, and, (d) community radio and safety from cyclone.

Community Preparedness: Evacuation and Safety Measures

It is observed that people in general follow media announcements for primary information (awareness) about impending cyclones. It is also observed that people in high-risk zones (within 1 km from sea shore) have a

greater fear than others and start preparedness activities (for instance, storing drinking water bottles, tying dry food in plastic bag, and charging torch light batteries and mobile telephones) ahead of those living further inland. Moreover, it has been found that vulnerability is greater amongst people in isolated and scattered settlements rather than clustered villages. People living outside the cross dam (a protected earthen dam that averts surge water) are the most vulnerable across the areas studied. People in those areas follow a 'wait and see strategy' to move towards shelters, considering cyclones to be an act of Allah. For instance, Abul Khair (46) a fisherman at Teknaf bazaar, who often navigates Ravali area (a well-known fishing area 50 km away from his sea shore residence), expresses his opinion this way:

I know the risk of cyclones (tufan) whenever navigating in the deep sea. But what can I do except depend on Allah who is the controller of my life and death. ... I always ask my family to move to cyclone shelters and leave behind all belongings when the danger signal number reaches seven. Because, this number is really dangerous; but I don't bother about my own life; I am experienced within this kind of calamity.

In addition to this strategy, vulnerable people living just outside the cross dam, know that they are living in danger areas. To avert any casualties, many of them follow instructions from government and non-government cyclone management authorities. People remember the instructions of disaster volunteers as their safeguard during the previous cyclone. Halima Begum (37) a widow living in Rehania at Hatiya island says:

Immediately after hearing the cyclone (ghurnijhor) warning, either from a neighbour or any other sources [she mentions mobile phone calls from her paternal family], I tie up all my valuable belongings (mainly national ID card, mobile phone charger, cash posses in her copper) in a bag and wait for the neighbourhood's action in case I need to move to the cyclone shelters. In most cases, I feel no need to move to shelters since one of my neighbours has brick-built house [the nearby cyclone shelter is around a km away from her house while the neighbour's house is a 10 min walk]...[but] only when the Red Crescent volunteer asks to move from home, I start moving immediately.

These experiences ascertain that preparedness activities and the use of cyclone shelters depend on the availability of warning messages and availability of places for refuge.

Preparedness and Campaign Strategies: Community Radio Intervention

The programme content analysis reveals that all the studied community radio stations focused on cyclone preparedness and evacuation related programmes in their daily schedules. Lokobeter for instance, includes weather bulletins in news and broadcasts special programmes (30 min duration) on cyclones such as (roughly translated) – Tales Between Grandma and Grands (*Nani Natir Kischa*) Saturdays 4.45-5.30 pm and Talk of the Shore (*Upokuler kotha*) Sundays 7.45-8.30 pm. In addition, immediately after receiving a cyclone warning from SWC, the station continues broadcasting special weather bulletins in half hourly intervals, keeping other regular programmes on schedule. When the SWC issues warning signal number four and higher, the station discards scheduled programmes and starts providing evacuation instructions along with hazard risk perceptions, pre-cyclone decisions (whether to go to cyclone shelters), intensity of wind speeds, and the probability of dangerous cyclone events. The station also starts religious programming (mainly *hamds* and *nath*) along with the preparedness precautions.

Radio Sagor Dwip focuses its activities mainly on cyclone and river erosion year round. The station broadcasts feature programmes (15 minutes duration) every Saturday and Wednesday at 11.30 am. The same episode repeats on Sunday at 2.35 pm. The programme 'Come, learn and stay safe' (*Esho Jani O Bachi*) includes the experiences of cyclone victims, their strategies to cope, ways of taking shelter and highlighting community radio's role in preparedness. This station broadcasts weather bulletins in the evening due to listener demand. Papiya Sultana, the station manager says, 'most Hatiya people are fisher folk went early morning for fishing into the bay, they return home [shore] before sunset; we broadcast weather bulletins in the evening instead of morning following their lifestyle.' The station constantly collects cyclone related information during danger periods from volunteers who are scattered across the island by using mobile phones and broadcast live. This station also halts all regular programmes after receiving a danger signal

number four from SWC and starts broadcasting the evacuation techniques and instructions for safety measures including religious programmes keeping people's morale high in facing an impending cyclone.

Kirshi Radio however, focuses different aspects on agriculture including the safety of seed and seedlings, planting, soil erosion, safety on insecticides and fertiliser. The station broadcasts special programme on cyclones – We and Disaster (*Durjoge Amra*), Fisher's Life (*Motso Jibon*). The station follows the SWC instructions broadcasting the special weather bulletins during a cyclonic period. Dr. Md. Zahangir Alam, the national coordinator of the station recalls the station's contribution to cyclone preparedness 'remarkable'. He states, 'Krishi Radio FM 98.8 [at the time of cyclone *Mohasen*] broadcast 92 consecutive hours' special programmes for those victimised, to seek shelter and especially to save their agriculture.'

Radio Naf broadcasts the 30 minutes programme 'Learn and live' (*Jene Nijeke Roksha Kori*) on Tuesdays at 4.30 pm, repeating on Wednesday at the same time, Talk-show on disaster (30 minutes duration), mainly on landslides and cyclones. Saturday programme focus on landslides (30 minutes duration) at the same time with the same title and repeats on Monday at the same time. According to Harun-ur-Rashid, the station manager, "our station broadcasts regular weather bulletins both in the morning and the evening ... during the cyclonic period, we take special care in broadcasting news and bulletins. Along with our coast, we pay special attention to the inhabitants of the island Saint Martin and the Rohingya refugees as well through local dialect." He further says, 'As our upazila (sub-district) is situated in the farthest south-east of the country, people don't have television signals, so they depend on radio. Radio Naf, fills the gap for information hungry locals'.

The programme format and language and textual analyses reveal that news bulletins are being broadcast in polished Bangla, following the state-run radio - Bangladesh Betar and commercial radio station's format. Lokobetar, however, broadcasts news bulletins in local dialects every Friday. Explaining why the news in local language is not broadcast regularly in community, Lokobetar station manager, Munir Hossain Kamal states that it is truly difficult writing news in local dialects, his wife translates news into the local dialect voluntarily for the station, which is then broadcasts once a week. Similarly, all cyclone related features broadcast in the local language (for instance, Naf use Chittagonian and Burmese language, Sagor Dwip uses Noakhalian and Lokobetar uses Barisal language). Krishi radio, in being a state-sponsored station, uses the formal language programming except in special cases. All programmes relating to cyclones are a blend of instructions, popular songs, folk tales, and drama. As such, the news and programme format is just a replica or clone of conventional radio. Radio Naf station manager Harun-ur-Rashid explains the reasons by saying, "we follow conventional radio weather bulletin structure and training experience from BNNRC in preparing the weather bulletins. The community radio policy [Clause 8.10] also instructs us to broadcast programme in polished Bangla blending with local culture and tradition".

Community Radio and Capacity Building

The field observation shows that BNNRC provides a series of capacity building workshops to operators and volunteers of the studied community radio stations. Official data shows that content development workshops on cyclones and other issues were held where the focus was on community engagement and participatory formats. It has been found that around 300 volunteers (mostly college youths) are engaged with the community radio stations in the study. Though there is no data available at what level their engagement with these stations is, it is assumed that many of them work voluntarily and their engagement is not particularly notable. Most left locality after having initial training, realising that their service is unpaid. Similarly, audiences comprise students, senior citizens, farmers, small traders, day labourers, rickshaw puller, women, fishermen, children, and NGO activists. However, when the local areas were studied in-depth, it has been found that except for the volunteers and member of listeners' club, locals express curiosity and surprise about the existence of community radio in their area. It is, however, notable that those living in townships (Upazila headquarter) watch television, but people living further away and without electricity use radio as a life-saving instrument during cyclones and in other instances. Madhobi Bala Sheel (45) a Sagor Dwip listeners' club member and a resident in Purba Laxmidiya village at the island Hatiya says:

Once our predecessors (murubbi) depended on fate; people become conscious now and try to follow the radio's instructions. Here, in our Laxmidiya, there is no electricity yet; I follow instructions from Radio Sagor Dwip during cyclone (ghurnijhor) season. Even my neighbours

who don't have a radio in their houses follow me to know about the condition of the bay (sagor). We are around three hundred families in this village depending on radio announcements and leave after instructions to evacuate from our homes.

A dozen people mainly farmers, makeshift vendors, boatmen, fishermen, tea stall owners, votvoti (locally made vehicle) drivers and students from *Lotabaria* and *Kakchira* villages, some 15-20 km and *Dhalbhanga*, a village of eight km away from district town Barguna including those in townships stated they are aware of Lokobetar and often listen to programmes on this station. However, young people are more enthusiastic about Lokobetar programmes, while the elderly and women know little about the station. Nizam Mridha (38), a day labourer at *Dhalbhanga*, says, 'I need mobile head phones to listen Lokobetar. It is boring and I do not listen to it in general; ... I follow its instructions during cyclone. The programme broadcasted boosted my morale during such a traumatising situation.' Similarly, Shahan Ara (32), a housewife from *Urashitola* village, 15 km away from *Krishi Radio* station says:

I listen to the [Krishi Radio] programme always. Instructions relating to cyclone disasters are amazing. May Allah live long the people of this station, because through these instructions, I [as a woman] know now what needs to be done to prepare during a cyclone and in other cases like standing against dowry, domestic violence etc.

Listeners' clubs put radio transistors at village makeshift shops and keep transistors on during the cyclone period for better reach among the most vulnerable. When this researcher travelled a good number of radios had a loudspeaker in Nalchira *Haat* [weekly market place] at Hatiya and Kachuptra bazaar (market) of Amtoli (Krishi Radio coverage area) but those were not used and maintained properly. 'The maintenance training for listeners' club member and special bulleting preparation training for volunteers including us [station manager] are necessary', says Sagor Dwip station manager Papiya Sultana.

Community Radio and Safety from Cyclone

The importance of community radio announcements for cyclone preparedness is acknowledged by people, volunteers, listeners' club members, and station managers. It is observed that dependency on community radio for cyclone campaigns is highest in coastline areas where electricity is not available. In addition, women are generally more concerned about the safety of the family members and belongings. Madhobi Bala Sheel, Sagor Dwip listeners' club member from Purba Laxmidiya village at Hatiya acknowledging the importance of radio announcement, says:

My husband asks me to keep this radio safely; [and] repeatedly advises me not to hand it over to anybody. ... If the Dwip Unnayan take it [the radio set] back, I must buy one to keep myself up to date regarding cyclone preparatory activities.

Besides the lack of electricity, people living in isolated locations consider community radio to be one of the best options for cyclone warning messages. Halima Akther (21), living at Dhokkinpara on the far end of Teknaf says:

Radio is a valuable source of modern [scientific] information for cyclone preparedness activities. I appreciate radio announcements very much. Every moment, I keep my radio [Naf] on to listen for instructions for tides and during cyclones; radio is like my friend as it provides information in Bengali language [local dialect].

Typically, it is believed that the credibility of a cyclone warning messages depend on the warning messages' content, characteristics, sources, compatibility of the message with the receiver's existing beliefs, and past experience with similar warnings. In every case, it has been noticed that cyclone bulletins through community radio bears strong credibility and people living in the coastal areas studied consider community radio to be a good source for immediate information on the ground. The field data shows previous experience and has a strong influence in evacuation, and bulletins broadcast in the local dialect become more trustworthy amongst people. Papiya Sultana, Sagor Dwip station manager asserts;

People trust our radio, they can even understand the formal Bengali language; people never complain about the language though we know that local dialect is more effective. We prepare programme content as needed by all of our people. We have survey reports on the characteristics of our listeners. More so, all volunteers and I myself were born and brought up in Hatiya, which is always a victim of cyclone [bonna]. Our commitment towards our people is the asset.

Although SOD specifies that all special weather bulletins should contain the location of the cyclone, estimated central pressure, direction and speed of movement, maximum sustained wind speed, radius of maximum sustained winds, areas likely to be affected, approximate time of commencement of gale force winds (speed of more than 32 mph or 52 kph), maximum wind speed, expected storm surge height and areas most likely to be impacted. In reality, the special weather bulletins of community radio often fail to provide all of this information. Mr. Shameem Khan, executive producer of Krishi Radio, says:

I have no option except to follow the SWC instruction. If I bring any change to those [instructions], it might confuse people. I must follow the same bulletin that our national radio stations [to some extent television stations] prepare. ... It would be good if we can have a report of people's needs from us [in regards to cyclone bulletin].

Discussion and Conclusion

The VOICE standard guidelines are practical and are based on concrete suggestions for broadcasters (BRCS & IFRC, 2017). In VOICE standard V-stands for Value - the programme values listeners from small and marginalised communities, both male and female, and presents disaster-affected people with special honour (as they are fighting for their survival); O for Opportunity - the programme provides disaster-affected people the opportunity to speak and be heard on all matters; I for Information - the programme presents timely, specific, and practical information in a simple and clear manner; C for Consistent and Convenient - the programme maintains a sequence in its presentation and is aired at a time when both male and female listeners can take part; and E for Entertaining - the programme is memorable and is created to attract audience attention from beginning to end. The Bangladesh Government and IFRC/BDRCS recommends following these guidelines in cyclone preparedness related programme planning and broadcast bulletins. Similarly, the National Disaster Management Policy 2015 stressed on outcome based efforts for disaster preparedness and mitigation matching with local culture, context and values, which are mostly relevant to the role of community radio in Disaster Risk Reduction (DRR).

Earlier, the studied coastal belts community radios (except Sagor Dwip) have played significant role in dissemination of cyclone warnings and full time updates on the movement of *Mohasen* in 2013 (Morshed, 2017). Previous studies (Choudhury, Uddin & Haque, 2019; Paul, et al., 2010: 89-90) also provide significant insights into cyclone victims' inability to participate in evacuation initiatives. Paul, et al., (2010:89-90) classify the inabilities into three categories - (a) factors related to cyclone preparedness and infrastructure, (b) socio- demographic and socio-economic factors, and (c) factors related to hazard perceptions and attitudes. Firstly, among the factors related to cyclone preparedness, a large number of comments were related to the credibility of the warning systems. Some respondents felt that the warning systems were overly complicated; others complained that no warning was issued; while many simply did not believe the warning. In such a situation, it is recommended that community radio stations provide adequate airtime for victims' reception of emergency messages, their participation in emergency communication and the broadcast of warning bulletins in local dialects.

Field data shows that although the studied community radio stations provide space for volunteers from within the community to participate and share their voice, this does not yet include disaster-affected people. Only experts have the opportunity to speak on behalf of victims. Studied stations tried their best to value listeners but due to financial considerations, and travel allowances, station managers cannot always provide listeners space to participate. However, all the feature programmes contain entertaining content. For instance, Lokobetar magazine programme 'Tale of Grands' (*Nani Natir Kischha*) provides preparatory instructions comprising jokes and humour and people recall the name of the programme instantly. *Dhokkina Hawa* and news broadcast in the local dialect are also well accepted amongst listeners. The Radio Sagor Dwip programme Come, learn and keep safe (*Esho Jani O Bachi*), Radio Naf programme 'Learn and live' (*Jene*

Nijeko Roksha Kori) and Krishi Radio programme We and Disaster (*Durjuge Amra*) though very informative, still struggle with popularity due to their monotonous nature. These programmes include both experts and locals in providing scientific opinion regarding the evacuation and preparedness instructions.

Community radio stations need to focus more on participation of those who are more vulnerable in disasters within the broadcast range of the station. Participation, from programme planning to management levels, ensures the level of understanding necessary for all of the community to inform content and delivery of programmes and bulletins to broadcast. In addition, to prepare content and boost the morale of vulnerable people, VOICE standard is one of the ways to enhance access amongst people and increase participation. More so, the wider need for engagement with community radio needs to be addressed by station managers through training with a standard disaster broadcast manual to function as a permanent resource for the station.

Preventing cyclone and other natural disasters is almost impossible. It is possible to minimise the damage to property and loss of lives by learning how to respond to these catastrophes. This study admits that as community-driven, volunteer-run, not-for-profit organisations operated community radio stations in Bangladesh position themselves differently in their process, approach, style, and content in comparison to the state-owned and commercial broadcasters dealing with cyclone disasters. It is possible for community radio stations to challenge the hegemony of the mainstream, both commercial and state-owned media and its programming methods through developing rigorous and appropriate broadcast approaches to cyclones through adequate training and planning. More in-depth research is necessary to unpack those constraints and develop the way out of those constraints. A manual for station managers and volunteers would be a great resource to understand the nature of cyclone-related community radio broadcasting and how to issue programming effectively to better support public safety.

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References

- Akhter, R. (2018). *Unaddressed arena of community radio study in Bangladesh*, Paper presented in the First International Conference on 'Media, Communication and Journalism: Prospects and Challenges in Bangladesh and Beyond', 17-19 July, 2018. University of Chittagong, Bangladesh.
- Akhter, R. & Ullah, M. S. (2014). News coverage of cyclones and risk exposure of journalists in Bangladesh, *Mass Communicator*, 8(3), 4-11.
- Alam, E. (2018). *Coping and adaptation: Coastal communities with disasters*, AH Development Publishing House.
- Alam, E. & Collins, A. E. (2010). Cyclone disaster vulnerability and response experiences in coastal Bangladesh, *Disasters*, 14 (4), 931-954. <https://doi.org/10.1111/j.1467-7717.2010.01176.x>.
- Bangladesh Disaster Management Bureau (2008), *Super cyclone Sidr 2007: Impacts and strategies for interventions*, <http://www.dmb.gov.bd/reports/Sidr-ReportText%2017Feb2008.pdf>.
- Bangladesh NGOs Network for Radio and Communication. (2013, September 24). *Community radios in coastal Bangladesh in addressing Cyclone Mahasen*. Report presented in Social Good Summit, Dhaka.
- Bangladesh NGOs Network for Radio and Communication. (2017). *Three community radio stations in Bangladesh included in finalists of the Asia-Pacific Broadcasting Union Prizes, 2017*. <http://bnrc.net/three-community-radio-stations-in-bangladesh-included-infinalists-of-the-asia-pacific-broadcasting-union-abu-prizes-2017>.
- Bangladesh Red Crescent Society. (2017). *Broadcasting live radio programs on disaster preparedness and response through community radio stations: Guideline*. Shongjog.
- Beck, M. W. (Ed.) (2014). *Coasts at risk: An assessment of coastal risks and the role of environmental solutions*, United Nations University - Institute for Environment and Human Security (UNU-EHS), https://www.crc.uri.edu/download/SUC09_CoastsatRisk.pdf.
- Begum, R. (1993) Women in environmental disasters: The 1991 cyclone in Bangladesh, *Gender & Development*, 1 (1), 34-39, DOI: 10.1080/09682869308519953.
- Birowo, M. A. (2009). The use of community radio in managing natural disaster in Indonesia, *Bulletin of the American Society for Information Science and Technology*, 36(5), 18-21. <https://doi.org/10.1002/bult.2010.1720360506>.
- Changemaker (2013). *DRR and Community Radio- A baseline survey on community capacity on disaster risk reduction by community radio in Hatiya-a coastal Upazila of Bangladesh*, JICA, BHN and DUS.
- Choudhury M, Uddin, M.S. & Haque, C.E. (2019). Nature brings us extreme events, some people cause us prolonged sufferings: The role of good governance in building community resilience to natural disasters in Bangladesh, *Journal of Environmental Planning and Management*, 62(10), 1761-1781. <https://doi.org/10.1080/09640568.2018.1513833>.
- Chowdhury, A., (1999). *Coping: People and society in the coastal area: A report on Three high risk areas- Hatiya, Banskhali and Patharghata*, Oxfam.
- Dasgupta, S., Huq, M., Khan, Z. H., Ahmed, M. M. Z., Mukherjee, N., Khan, M. F., & Pandey, K. (2014). Cyclones in changing climate: The case of Bangladesh. *Climate and Development*, 6(2), 96-110. <https://doi.org/10.1080/17565529.2013.868335>.
- Disaster Management Bureau (2008). *Cyclone Sidr in Bangladesh: Damage loss and needs assessment for disaster recovery and reconstruction*, Government of Bangladesh.
- Guo, L. (2017). Exploring the link between community radio and the community: A study of audience participation in alternative media practices, *Communication, Culture and Critique*, 10 (1), 112–130. <https://doi.org/10.1111/cccr.12141>.
- Hasnat, I. & Steyn, E. (2018). Community radio in Bangladesh: Limited reach with unlimited impact, In E. Freedman, R.S. Goodman & E. Steyn (Eds.), *Critical perspectives on journalistic beliefs and actions: Global experiences*, (pp. 69-79). Routledge.

- Heintze, H., Kirch, L., Kuppers, B., Mann, H., Mischo, F., Mucke, P., Pazdzierny, T., Prutz, R., Radtke, K., Strube, F., & Weller, D. (2018). *World Risk Report 2018: Child protection and children's rights*. Bündnis Entwicklung Hilft. https://weltrisikobericht.de/wpcontent/uploads/2019/03/190318_WRR_2018_EN_RZonline_1.pdf.
- Hibino, J. & Shaw, R. (2014). Role of community radio in post disaster recovery: Comparative analysis of Japan and Indonesia, In R. Shaw (Ed.), *Disaster recovery: Usedor misused development opportunity* (pp. 385-410). Springer.
- Jethewaney, S. (2012). *Community radio as a tool for disaster management in India*. https://www.academia.edu/27743816/Community_Radio_as_a_tool_for_Disaster_Management_in_India.
- Kaioum, M. M. A. (2019). Framing post disaster issues in community radio in coastal area, In A. Dutta & M. S. Ullah (Eds.), *Invisible waves: Visible changes: Community radio in Bangladesh*, (pp.105-136). ARMT Publication.
- Kanayama, T. (2007). Community ties and revitalization: The role of community radio in Japan. *Keio Communication Review*, 29, 5-24.
- Ministry of Disaster Management and Relief. (2017, March). *National plan for disaster management (2016-2020): Building resilience for sustainable human development*. [https://modmr.portal.gov.bd/sites/default/files/files/modmr.portal.gov.bd/policies/0a654dce_9456_46ad_b5c4_15ddf8c4c0d/NPDM\(2016-2020\)%20-Final.pdf](https://modmr.portal.gov.bd/sites/default/files/files/modmr.portal.gov.bd/policies/0a654dce_9456_46ad_b5c4_15ddf8c4c0d/NPDM(2016-2020)%20-Final.pdf).
- Morshed, S.M. (2017). *Role of community radio for disaster risk reduction: Learning from field experiences in Bangladesh* (Policy Brief), BNNRC.
- Nahak, F. M. (2018). Role of media in disaster preparedness: Some case studies from calamities prone Odisha, In U. Padhi (Ed), *Communication for development*, (pp.251-262), Institute of Media Studies, Utkal University.
- Nix-Stevenson, D. (2013). Human response to natural disasters. *SAGE Open*, 1–12. <https://doi.org/10.1177/2158244013489684>.
- Paul, B.K., Rashid, H., Islam, M.S., & Hunt, L. M. (2010). Cyclone evacuation in Bangladesh: Tropical cyclones Gorky (1991) vs. Sidr (2007), *Environmental Hazards*, 9 (1),89-101.
- Rahman, M.S. (1999), *Disaster Management' in Bangladesh 21st Century*, In Mohiuddin Ahmed (Ed.), (pp.105-25), Community Development Library.
- Raj S.J., Ullah, M. S. & Akhter R. (2010). From dissemination to response: In search of new strategies for broadcast media in terms of cyclone warnings for Bangladesh, by *Journal of Science Communication*, 9(4).
- SEEDS Asia (2009). Know disaster, tell disaster risk reduction: Training handbook for media professionals. SEEDS Asia. https://www.preventionweb.net/files/11705_91358948mediatraininghandbookEnglis.pdf.
- Talukder, J. (1992). *Living with cyclone: Study on storm surge prediction and disaster preparedness*. Community Development Library.
- Ullah, M. S. (2003). The role of dialect specific radio warnings in saving lives during cyclonic disaster in Bangladesh: Turning the tide on disasters towards sustainable development. *World Disaster Reduction Campaign 2003*, UNISDR. https://www.unisdr.org/2003/campaign/english/21_Article_BANGLADESH_eng.pdf.
- United Nations. (2015, March 18). *Sendai framework for disaster risk reduction 2015–2030*. Paper presented at the Third World Conference on Disaster Risk Reduction, Sendai, Japan. Reliefweb. https://reliefweb.int/sites/reliefweb.int/files/resources/Sendai_Framework_for_Disaster_Risk_Reduction_2015-2030.pdf.
- United Nations Development Programme. (2014). *Bangladesh: Disaster risk reduction as development*. https://www.undp.org/content/undp/en/home/librarypage/povertyreduction/supporting_transformationalchange/Bangladesh-drr-casestudytransformational-change.html.
- Wikipedia (2019). List of Bangladesh tropical cyclones. (2019, January 4). In Wikipedia. https://en.wikipedia.org/wiki/List_of_Bangladesh_tropical_cyclones.