



National
Resilience
Programme



POLICY BRIEF

ASSESSING GENDERED NEEDS AND EFFECTIVENESS OF THE DISASTER EARLY WARNING SYSTEM IN BANGLADESH




BACKGROUND

Bangladesh is ranked 71 (out of 146 countries) in the latest (2022) Gender Gap Report published by the World Economic Forum and has retained its position as the best-performing South Asian country for the eighth consecutive year (World Economic Forum, 2022). Bangladesh's achievement in transitioning from the most vulnerable country in South Asia to a resilient one over the last 50 years of disaster management leadership is impressive.

The achievement of Bangladesh in disaster management can be traced to policy and institutional domains that facilitated the decentralization of disaster management to local-level institutions. The shift from relief and rehabilitation measures to holistic warning-based community preparedness and cohesive response efforts have also resulted in a drop in the number of lives lost (Islam, 2022). The number of casualties due to natural disasters has substantially decreased because of Bangladesh's improved disaster management infrastructure (Nasreen, 2021). The fact that Bangladesh has prioritized its disaster management efforts is also reflected on the budgetary commitment for climate response which has increased from US\$1.44 billion in FY 2014–2015 to US\$2.96 billion in FY 2021–2022 (Government of the People's Republic of Bangladesh, 2021).

However, despite Bangladesh's progress in disaster management, the possibility of disaster shocks persists due to the country's unique geographic position. Furthermore, there is an emerging concern related to gender-based vulnerabilities in disaster management. This is manifested in the dissemination of early warning messages which often do not take into consideration the unique challenges faced by the women in Bangladesh, especially in the rural areas and from the low-income households.

This policy brief builds on both secondary literature and primary findings from the study titled 'Gender and Disaster Early Warning System in Bangladesh' that was commissioned by UN Women in 2022 with the objective to assess the effectiveness of current early warning systems in Bangladesh in response to the needs of most vulnerable group of women and other marginalized groups in terms of timeliness, accessibility, and usefulness. The policy brief also provides recommendations for relevant stakeholders to design, monitor and adapt interventions to respond to the specific challenges and growing needs of the targeted communities for getting early warnings during floods and cyclones.



VULNERABILITY OF MARGINALIZED WOMEN GROUPS TO CYCLONES AND FLOODS

The vulnerability of the surveyed marginalized women groups (women from female headed households, elderly, women with disabilities, adolescent girls, transgender and sex workers) to floods and cyclones has been assessed in terms of frequency/severity of cyclones and floods, socio-economic impact, and required time and money for recovery.


It has been observed that, nearly half (53%) of the surveyed respondents are vulnerable to both cyclones and floods every year. While comparing the results across the geographical locations, it was observed that nearly every respondent in the Barishal, Khulna and Patuakhali districts are vulnerable to disasters while it is comparatively lesser in other study districts.

The majority of the surveyed women and vulnerable groups reported that cyclones and floods damage their entire house each year. The transgender people and sex workers were reported to be the worst hit case as the majority of them (transgender people – 73% and sex workers – 68%) lost their dwellings (usually a rented house) during cyclones. As majority of the transgender people and sex workers reside in a rented house/along with their community and do not have any other place (e.g., a family/relative's house) to take shelter during disasters, they mostly prefer to take shelter in the shelter centers.

Those who are affected by flood usually experience 7 days of exposure to flood water. Of those who take shelter outside their home during floods, the majority reported of staying outside their home for more than 15 days.

Women also suffered from multiple health and sanitation issues during floods and cyclones. Among the surveyed women and girl respondents, adolescent girls (64%) were the worst hit in terms of suffering from different health diseases during floods. Due to financial and mobility barriers during disasters, they cannot purchase necessary sanitary and hygiene materials. Marginalized women had to rely on their own income and, in some cases, they had no one to provide financial support to them during the disasters, and therefore, they had to suffer from different non-communicable diseases (cardiovascular diseases, chronic respiratory diseases, diabetes etc.) during the disasters without proper treatment.

Transgender people need more time (more than six months) than the other women groups surveyed to recuperate from the damage caused by cyclones and floods. The respondents needed, on average, Bangladeshi taka (BDT) 17,451 for recovery after a cyclone because of loss of income and assets. The recovery amount was higher (BDT 19,567) for the respondents after a flood as the amount of loss in terms of income and assets is much higher during floods compared to cyclones.



EFFECTIVENESS OF CYCLONE AND FLOOD EARLY WARNING SYSTEM

The effectiveness of the cyclone and flood early warning systems have been assessed in terms of (i) **accessibility** (ii) **timeliness** (iii) **reliability** and (iv) **usefulness**.

Accessibility: The marginalized groups have greater access to the cyclone's early warning system than to the flood early warning system. Only 65% of the target respondents had access to information on imminent flood, whereas 96% had access to early warnings for cyclone. Most of the surveyed respondents rely on in-person and secondary communication sources of information for receiving early warnings. Local announcement/miking in the community area is the primary source of getting cyclone and flood early warnings for marginalized women and girls. However, there are differences between the vulnerable groups in terms of the sources through which they receive early warnings:

- ✓ Announcement/miking in the local bazaars/local markets for disseminating early warnings is mostly popular among single-headed household marginalized women (43%), sex workers (35%) (mostly in the case of floating sex workers) and transgender communities (31%) who frequently visit neighborhood markets for their living.

- ✓ Local announcement in the community area is a common source of getting early warnings for elderly women (72%) and women with disabilities (63%) who spend most of their time at home.
- ✓ Television is one of the major sources of early warnings for adolescent girls (83%).
- ✓ Receiving warnings through mobile phones is more common among sex workers (53%) and transgender people (44%) when compared to marginalized women and adolescent girls, as they have more direct access to mobile phones than other marginalized women groups.
- ✓ Receiving early warnings via mobile SMS is not particularly common among those surveyed. For example, only 5% of respondents receive cyclone early alerts through a mobile phone SMS. As the majority of study participants claimed to have no formal education (Marginalized women - 66%, Sex workers - 54%, and Transgender persons - 50%), they reported being unable to read early warnings via mobile SMS.

- ✓ There is disparity between men and women in terms of accessing early warning messages. The majority of the community men in the survey rely on formal sources, such as television (38%), community leaders (34%) and mobile phones (34%), for cyclone early warnings.

Timeliness: The transgender community and sex workers were reported to be in the worst situation in terms of getting timely warnings for cyclone and flood preparedness. Transgender people and sex workers receive the warnings less than six hours before the flood/cyclone hits their area, which is not sufficient for them to take disaster preparedness action. However, sex workers (53%) and transgender people (44%) who receive the warnings via mobile phone can make necessary preparations for early evacuation. Marginalized women, who lack direct access to mobile phones, rely on informal sources for warnings. This affects their timely disaster preparedness.

Reliability: Community disaster management volunteers are the most reliable sources for marginalized women groups for disaster early warnings.

Usefulness: Women from more vulnerable groups have varied preferences in terms of preparedness and response, including a preference for earlier evacuation. About 74% of sex workers and 57% of transgender people prefer to move to shelter centers for evacuation once they receive early warnings because they lack another place to seek shelter during disasters. However, marginalized women and adolescent girls prefer to move to a relative's house after receiving early warnings. The respondents' available assets at home are a major determinant of how much time is required to prepare for leaving for shelters away from home. For instance, sex workers (62%) and transgender people (44%) need less than one hour to move out of their house once they receive early warnings. However, elderly women and women with disabilities need one full day to move out of their houses, as they require assistance from others to prepare themselves for seeking shelter outside their houses. In addition, families with children require more time to prepare for leaving their home during disasters.

Factors constraining effective response to early warning: A variety of factors contribute to marginalized women's and girls' refusal to seek shelter outside their homes, even after being warned to do so:

- ✓ **Protecting property and assets at home:** The decision of respondents to evacuate their homes during disasters is related to the ownership of their homes. About 59% of the marginalized women preferred not to leave their houses, as they had to protect their property and assets at home.
- ✓ **Safety and security concerns:** Compared with other women groups, adolescent girls (36%) are more reluctant to take shelter outside their house as they are more concerned about their safety and security. Of the surveyed adolescent girls, 78% reported feeling safe to stay at home during disasters. Moreover, marginalized women, especially women from single-headed households, prefer to stay at home because of their fear of facing sexual harassment and assault during and after a disaster.
- ✓ **Lack of voice and decision-making power in the family:** Women and men have distinct roles in response, with men tending towards decision making roles and women focusing on care-giving roles. As a result, women's response to disaster preparation becomes dependent and delayed.
- ✓ **Unsafe evacuation routes:** As evacuation routes are not suitable for vulnerable groups, such as people with disabilities (22%) and elderly women (11%), vulnerable groups prefer not to go outside their home, even after receiving early warnings.
- ✓ **Lack of understanding of the warning messages:** In terms of the clarity of the warnings received, 39% of women reported they face technical difficulties in understanding the early warnings/messages during cyclones and floods. The language barrier was also identified as one of the major barriers to understanding the cyclone/flood early warning.



KEY MESSAGES

Access to early warnings for marginalized women is affected by inequalities in economic and social capital and access to technology, and this results in their over-reliance on in-person and secondary communication sources of information for receiving early warnings. The tendency of women to prefer verbal dissemination may be linked to a lack of access to digital devices. The study has observed a significant correlation between women's access to digital devices and their preference for receiving early warnings through their phones. Moreover, as most of the marginalized women surveyed claimed to have no formal education, text message-based warning messages over the phone may be less likely to meet their needs.

Clear gender differences emerged when the respondents were asked about the most preferred source of early warnings. Local announcement/miking was preferred by 78% of surveyed women and girls, compared with 50% men. In another comparison, findings show that, compared with the marginalized women groups, a higher percentage of men in the community prefer voice calls (31%, compared with 26% of marginalized women) and text-based messages (23%, compared with 13% of marginalized women) for receiving early warnings.

Early warnings that are disseminated before any upcoming cyclones/floods do not contain any messages considering women's and girls' gendered needs (e.g., safety and secure rehabilitation, available facilities in shelter centers and health/sanitation-related information), and this affects the preparation and response of women and girls before any disasters.

Different local actors are working in coordination with government bodies to disseminate cyclone and flood early warnings; however, there is a lack of initiatives to increase risk knowledge and understanding of disaster early warning systems at the community level. As a result, different vulnerable women groups did not receive any training or awareness-raising sessions on enhancing their risk knowledge and understanding of disaster early warning systems. Moreover, local-level stakeholders from different study locations revealed that proper risk assessment and mapping is not carried out at the local level. Critical local flood/cyclone hazard, exposure and vulnerability information is not accessible to most of the surveyed vulnerable women groups.

The early warnings are issued in a generic language (which applies to everyone, regardless of the special requirements of different women groups) to reach a wide variety of stakeholders. Thus, timely information is frequently unavailable

to the targeted vulnerable areas. The disaster management system in Bangladesh has a tiered flag/signal system for disseminating early warnings to the communities. For instance, CPP volunteers use a '3 flag system' to communicate the level of danger to the community. These warnings, however, are delivered in a generic manner in order to reach a wide range of stakeholders, regardless of the susceptibility of the targeted places. Furthermore, even when people in risk locations receive early warnings, they are not converted into immediate preventive and early action. As a result, potential loss and damage are unavoidable.

there is inadequate number of CPP volunteers in remote areas which was identified by the women and girls surveyed as one of the major challenges for receiving timely and accurate early warnings. Though the CPP has strengthened its team over time by recruiting more women as volunteers to motivate and persuade women who do not want to go to the shelter centers because of various stereotypes and misconceptions, the number is still inadequate.

There is no separate entity/actor to disseminate timely early disaster warning messages to sex workers and transgender people. The case is worst for brothel-based sex workers, but similar situations were reported by 47% of transgender people.

CPP women volunteers are not always aware of the need for gender-sensitive responses and so they take a more traditional approach. Although the CPP has enrolled women volunteers who are assigned to take care of female survivors before and during a cyclonic event, these female volunteers are still not well informed about their role in terms of victims' gender-differentiated needs. In addition, as training materials for the Flood Preparedness Programme have not yet been developed, volunteers are not aware of the need to treat male and female disaster victims differently.

There is limited availability of protective equipment and resources (hand mikes, raincoats, life jackets, first aid kits, etc.) for volunteers to disseminate warnings in the most vulnerable areas. Owing to this, it becomes difficult to sustain the same high level of motivation among all volunteers at all times.

Although there is a sound, scientific basis for predicting potentially catastrophic events, the existing technology is still not sufficiently advanced to predict flash floods. In addition, it is challenging to continuously monitor potential disaster precursors to create accurate warnings at the appropriate times due to a lack of investment in assuring advanced technologies and qualified human resources.

RECOMMENDATIONS

Targeting vulnerable women's and girls' preferred convenient sources for early warning dissemination: To target vulnerable women's and girls' preferred convenient sources for early warning dissemination, it is important to seek out existing networks and organizations that work with these populations. This can include local schools and religious institutions, as well as community organizations and activists for instance, grassroots organizations, non-profit

organizations, advocacy groups etc. who are known about the particular needs, challenges, and opportunities that exist within the community and can provide invaluable insights into how best to target the population with early warnings.

It is also important to consider different channels of communication, such as radio, text messaging, and social media, which are often more accessible and convenient for vulnerable women and

girls. Additionally, using outreach mechanisms such as door-to-door visits and interpersonal communication can help ensure that the message is heard and understood.

Ensuring access to a digital device and digital literacy of marginalized women groups: Before disseminating early warnings via voice calls/short messaging service (SMS), it is important to ensure that marginalized groups have access to digital devices. In this regard, subsidized digital devices (mobile phones) might be offered to marginalized groups so that they can easily afford them. In addition, it is critical to assure the digital literacy of marginalized groups through various capacity-building efforts. In this regard, gender-responsive local government budgeting should be considered. In terms of increasing the adolescents' risk knowledge of adolescents and building their capacities to better respond to the early warning messages, it is crucial to include disaster preparedness-related information in their education curriculum. In this regard, initiatives such as 'Prostoot (learning by playing program)' by Cyclone Preparedness Programme can be utilized and strengthened to better prepare adolescents (particularly adolescent girls) for disasters.

Establish proper priorities while disseminating timely warnings: To allocate scarce resources most wisely, relevant stakeholders should make disaster management choices according to the highest priority. As transgender people and sex workers mostly take shelter in community shelter centers, transgender people and sex workers should be notified earlier about any upcoming floods/cyclones so that they can safely evacuate on time. In this regard, more CPP volunteers should be enlisted in areas near brothels and communities where sex workers and transgender people live.

Comprehensive training should be provided to volunteers to increase their understanding of the gender-differentiated needs of vulnerable women groups: Volunteers need to be sensitized to the issues of gender and be aware of the gender-differentiated needs of vulnerable women groups so that they can respond to the needs of specific groups accordingly.

More active engagement of women volunteers in the early warning dissemination process to reach vulnerable female networks. Many women choose

not to evacuate in the belief that their place is in the home or out of a fear of gender-based violence in overcrowded shelters. Addressing these beliefs is part of the role that volunteers play today when trying to persuade women to evacuate. Although situations are improving with the introduction of female volunteers, their more active involvement should be ensured.

Emphasize disseminating gender-specific warning messages: As existing early warnings do not contain any gender-specific messages, preparedness messages should consider the specific gendered needs of the targeted community.

Sensitization and involvement of the relevant local authorities: It is important to ensure that the local government officials with administrative responsibility (e.g., Upazila Nirbahi Officers, chairmen, DWA officials) understand the importance of gender and the implications of gender sensitivity in programme planning and implementation. To ensure this, gender-sensitive disaster risk reduction training is needed for both male and female local-level officials at all levels. In addition, DWA officials can effectively target the most at-risk women's communities and work with CPP and Union Disaster Management Committee (UDMC) officials to provide timely early warnings to those who need them most.

Involvement of local community: A local, 'bottom-up' approach to early warning, with the active participation of local communities, can ensure that the contents of warnings and preparedness messages are meeting the needs of local communities and are also socially and culturally appropriate. Under this bottom-up approach, consultation with vulnerable communities about their preparedness plans, safe evacuation routes, preferred source and timing of early warnings, and support required to strengthen their capacity to respond to the early warnings may be discussed. In addition, creating adolescent clubs in rural community schools can also be an effective strategy to make aware and train adolescents on disaster preparedness so that they can share their knowledge with their family and community. In this regard, different research and funding initiatives with grassroots organizations or specialist organizations can be an effective entry point.

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UN Women Bangladesh Address:

House # 39, Road # 43, Gulshan-2, Dhaka-1212, Bangladesh

T: +880 2 985 8593 | F: +880 2 988 3828

Web: asiapacific.unwomen.org/en/countries/Bangladesh

Facebook: @unwomenbangladesh

