Anticipatory action in the age of Covid-19: lessons from Cyclone Amphan in Bangladesh

The dual challenge of Covid-19 and Cyclone Amphan

In March 2020, humanitarian actors in Bangladesh faced a dilemma: how should they protect people during the approaching cyclone season, while in the midst of the Covid-19 pandemic? This was especially tricky given that these two hazards posed competing challenges and requirements: the need to isolate and stay at home (Covid-19) versus the need to gather at shelters (cyclones); and volunteers potentially transmitting the virus (Covid-19) versus the need for volunteers to help with evacuations (cyclones).

In May 2020, this dilemma was put to the test when Cyclone Amphan approached the Bangladeshi coast. Through adaptive approaches, extensive preparations, and close collaboration with the government, hydrometeorological offices and other humanitarian actors, the Bangladesh Red Crescent Society and its forecast-based financing partners (Table 1) were able to activate their **Early Action Protocol (EAP) for Cyclones** ⬀ (Table 2). This provided the financing needed to act early and help coastal communities cope with these dual challenges.

This briefing draws on these experiences of acting ahead of Cyclone Amphan in Bangladesh, exploring how early actions and forecast-based financing was able to proceed during the Covid-19 pandemic.

Impacts of Cyclone Amphan in Bangladesh.
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Table 1. Key actors in the early actions ahead of Cyclone Amphan

Name	Role(s)
American Red Cross	• Partner to the Bangladesh Red Crescent Society, providing preparedness support and contingency funds through its Coastal Disaster Risk Reduction programme
Bangladesh Meteorological Department	• Contributed to developing the triggers in the EAP • Provided the forecasts that guided decision-making for trigger development
Bangladesh Red Crescent Society	• Centrally coordinated the forecast-based financing initiative • Mobilized resources and partners
Cyclone Preparedness Programme	• Disseminated early warnings once these were triggered • It has more than 55,000 volunteers across Bangladesh's coastal districts, who played a key role in implementing early actions at the community level • Partner to the Bangladesh Red Crescent Society, sharing vulnerability data and collaborating on the implementation of early actions
German Red Cross	• Partner to the Bangladesh Red Crescent Society, providing technical support and contributing to advocacy and partnership efforts
International Federation of Red Cross and Red Crescent Societies (IFRC)	• Provided financial support through its **Forecast-based Action by the Disaster Response Emergency Fund (FbA by the DREF)** ⬀ financing mechanism • Facilitated wider involvement in the process within the Red Cross Red Crescent Movement
Red Cross Red Crescent Climate Centre	• Contributed to monitoring and understanding forecasts and trigger conditions

The Bangladesh Red Crescent Society team assembles in Noakhali District to assist ahead of Cyclone Amphan.
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Table 2. Summary of Bangladesh's EAP for Cyclones and its May 2020 activation

	Approved	**Activation, May 2020**
Date	December 2018	18 May 2020
Funding	182,996 Swiss francs (190,316 US dollars / 173,407 euros)[1]	134,317 Swiss francs (139,690 US dollars / 127,279 euros)
Coverage	Up to 13 coastal districts	10 districts
Triggers	● 30-hour lead time ● Forecast wind speeds of >125km/hr ● Areas with >25% of houses at risk prioritized	● The triggers were activated at 16:30 on 18 May 2020, when there were forecasts of wind speeds of 165-175km/hr, and gusting of up to 195km/hr. ● Ten coastal districts were prioritized. ● The cyclone made landfall on 20 May 2020 at 21:00 (52.5 hrs later).
Target population	Up to 20,000 people	At least 36,365 people
Priority sectors	Health; water, sanitation and hygiene; livelihoods	
Early actions	1 Distribute food (flattened rice, sugar, high-energy biscuits) and water 2 Provide basic first aid at cyclone shelters 3 Install lights at cyclone shelters at night 4 Provide transport (tractors) for evacuations to cyclone shelters for people, their movable assets and their livestock	1 Distribution of 36,365 food packets and water 2 Distribution of 36,365 masks, mini soaps and hand sanitizers 3 Lights installation completed 4 Mobilization of 484 trained Red Crescent youth volunteers. Refresher training for staff and volunteers in 10 coastal districts. These volunteers assisted evacuations to 192 shelters, using 87 vehicles. They also assisted evacuations of 4,406 livestock.

Additional challenges posed by Covid-19

The activation took place on 18 May 2020, as the Covid-19 pandemic spread across Bangladesh. As a result, many of the early actions outlined in the EAP for Cyclones had to be adapted to comply with the additional restrictions and risks related to the pandemic. Many of these were implemented before the triggers in the EAP were reached; others took place after the EAP had been activated (Table 3).

Fitting PPE on a young girl at an evacuation centre.
© Bangladesh Red Crescent Society

Despite these adaptations, there were still numerous challenges to overcome:

- Covid-19 restrictions complicated the procurement of goods, due to supply chain interruptions, market closures and a shortage of PPE, among other issues.
- After activation of the EAP, staff from the Bangladesh Red Crescent Society headquarters in Dhaka could not travel to the affected districts to provide support, due to restrictions in place related to Covid-19.
- Due to challenges with ensuring physical distancing, many evacuees were reluctant to use the vehicles provided for evacuation and were wary of entering cyclone shelters.

Table 3. Adaptations to cyclone preparation (anticipation) and response activities

Pre-trigger adaptations

Coordination meetings were held virtually. This adaptation was made easier by the fact that most partners were online more often than usual at this time.

The guidelines for the Cyclone Preparedness Programme and the EAP were revised in March 2020 to comply with Covid-19 measures, in coordination with disaster preparedness actors. Training for volunteers was similarly updated.

The Cyclone Preparedness Programme identified additional buildings, including schools and government offices, to act as cyclone shelters. This meant that there were 13,000 buildings available, instead of 4,000, which increased the space available and allowed for physical distancing, as required during the Covid-19 pandemic. The capacity at each shelter was reduced by half.

Volunteers and programme staff were provided with personal protective equipment (PPE) to reduce the risk of Covid-19 transmission during evacuations.

The Bangladesh Red Crescent Society prepared a database with details of food supplies, vehicle suppliers, driver information and shelter suitability. This was shared with district evacuation management teams.

The IFRC agreed to cover the additional costs of the Covid-19 adaptations, which helped the actors involved to prepare for activation of the EAP.

Early warnings shifted from face-to-face messages to mass communication, for example using megaphones in priority districts. These messages included information about Covid-19 prevention and protection measures.

Post-trigger adaptations

PPE was distributed to people evacuated from their homes.

All evacuees underwent temperature checks at shelters and those suspected of having Covid-19 were provided with separate accommodation.

Covid-19 also made it even more difficult than usual to transfer funds to the field at short notice, due to issues with staffing and restrictions on banks opening. To overcome this, the American Red Cross and the Bangladesh Red Crescent Society collaborated, using their prepositioned funds for each district (200,000-400,000 Bangladeshi taka; approx. 2,332-4,664 US dollars) as contingency funds. These funds were replenished with money from the FbA by the DREF mechanism when it arrived.

Further hurdles during this activation included the short lead time between triggers being reached and the early actions commencing – just 30 hours, the shortest for any approved EAP – and conflicting forecasts about when and how strongly the cyclone would make landfall.

Success – in spite of the challenges

Despite these numerous challenges, the activation of Bangladesh's EAP for Cyclones unfolded smoothly, with all the early actions – and the necessary adaptations – being completed in advance of Cyclone Amphan making landfall.

Close coordination between the various disaster-preparedness actors was crucial to this success. For example, the IFRC was open to the early actions in the EAP being revised, which enabled practitioners in Bangladesh to tailor these to the unique circumstances of operating during a global pandemic. Budgets were redirected towards the purchase of PPE and certain early actions were prioritized over others. As a result, the activation assisted almost twice as many people as targeted in the EAP (see Table 2).

One of the many advantages of the forecast-based financing methodology is that it strengthens interest in, and the operationalization of, anticipatory action as an approach. Bangladesh has a long and impressive history of

disaster preparedness and early warnings for cyclones, dating back to the creation of the Cyclone Preparedness Programme in the aftermath of Cyclone Bhola in 1972. But forecast-based financing has added professionalization and technical robustness to this.

For example, forecast-based financing uses impact-based forecasts – specific, targeted analysis of vulnerable areas and populations – rather than general early warnings. These enable stakeholders to identify the areas with the highest vulnerability and, as a result, target their early actions towards those most in need. In the ten days before Cyclone Amphan hit Bangladesh, these impact-based forecasts were combined with the daily synoptic reports from the Cyclone Preparedness Programme. This approach helped other actors involved in disaster preparedness to realize that they could also act in anticipation of a cyclone, rather than waiting for an early warning[2] that a cyclone is going to strike.

The forecast-based financing mechanism also provides funds for advocacy efforts around anticipatory action, as well as training and workshops for volunteers and other actors. In Bangladesh, this has led to policy-makers, government officials and other disaster-response actors to implement anticipatory action approaches. For example, many now use the more robust and detailed impact-based forecasts to predict where hazards will have the strongest impacts. Meanwhile, the Inter Sector Coordination Group at Cox's Bazar has changed from having a 'response team' to an 'early action and response readiness team' and has established a new 'pre-alert phase' in its planning, during which daily information from the Bangladesh Red Crescent Society's forecast-based financing team is used to guide their early actions.

Volunteers prepare to share early warnings about Cyclone Amphan in Barguna District. © Bangladesh Red Crescent Society

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2 In Bangladesh, the Cyclone Preparedness Programme uses a series of flags to issue warnings.

Anticipatory action during Covid-19: lessons learned

The final report on the activation of Bangladesh's EAP for Cyclones (**IFRC 2020** ⧉) lists the lessons learned from implementing early actions ahead of Cyclone Amphan. The following recommendations focus on the experiences of implementing early actions during the Covid-19 pandemic.

When revising EAPs to address additional challenges – such as a pandemic – ensure that monitoring, evaluation, accountability and learning processes are updated accordingly. There should be a clear plan of action to ensure the impacts and lessons learned are captured. For example, if these processes are normally conducted face to face, how can they be adapted to minimize the risk of disease transmission for volunteers and affected communities?

Draw on the strengths of the National Society. The Bangladesh Red Crescent Society has strong networks, clear communication structures and units dedicated to disaster-related activities. These were all central to successfully adapting the early actions to comply with Covid-19 restrictions, and to activating the EAP effectively.

Compile and share information. The project team compiled databases of (among other things) shelters, vehicle providers, suppliers, marketplaces, and team leaders at cyclone shelters. Sharing this information with other local actors helped them to make informed decisions, for example about how to evacuate districts and where to take people.

Ongoing collaboration is vital for successfully implementing early actions – even more so in a context of addressing dual hazards. This EAP activation benefitted from close collaboration between the different actors working on disaster preparedness and early actions, who began discussing how to prepare for a cyclone during the Covid-19 pandemic more than a month before Cyclone Amphan hit. This collaboration was also effective in other ways, such as accessing contingency funds from other programmes already active at the district level while funding from the FbA by the DREF mechanism was delayed due to Covid-19. This was significant: every hour counts when preparing for a hazard and this EAP has a particularly short lead time (30 hours).

Localized decision-making and funding empower people working in target regions. This is a major advantage when restrictions are in place. For example, while Covid-19 precautions prevented staff from Dhaka travelling to the districts forecast to be affected by Cyclone Amphan, the existing decision-making structure – in which local actors have the tools, resources and training needed to activate an EAP, with minimal external inputs required – was key to a successful activation. This approach also increases local people's understanding and ownership of the early actions, with staff at the Bangladesh Red Crescent Society's headquarters and other technical experts acting in an advisory capacity.

Prioritize local buy-in and understanding of triggers. While advanced modelling and triggers are key to a robust forecast-based financing methodology, they also create barriers to understanding and buy-in, which can result in missed opportunities to strengthen existing initiatives. Instead, it is better to align triggers with local early-warning systems where possible. Transparency, and clearly outlining the processes behind decision-making for triggers, are also important. During Cyclone Amphan, the forecast-based financing project team explained their day-to-day thought processes to forecasters and other actors, highlighted how their respective contributions were applied (i.e., the importance of forecasts from the Bangladesh Meteorological Department), and – before the EAP was activated – explained the rationale behind not yet triggering it. This helped different stakeholders to better understand their role in the process.

Weather plays a crucial role in people's willingness to evacuate. In addition to hesitation about congregating in shelters during the Covid-19 pandemic, people expressed a reluctance to evacuate because the weather just before the cyclone hit was clear and calm; this made it hard for them to believe that a cyclone would soon land. Increasing trust in forecasts and early-warning systems can increase people's willingness to evacuate.

Prior to an activation, review early actions with the relevant stakeholders. This creates an opportunity to evaluate which actions are still appropriate during an unexpected context (e.g., during the Covid-19 pandemic) and which actions may need to be prioritized or adapted; it is also a chance to factor in cascading risks. Ensure that the planned early actions are complementary, minimize duplication and/or address critical needs gaps. When possible, be open to revising early actions accordingly.

Volunteers from the Bangladesh Red Crescent Society assist evacuees in Noakhali District. © Bangladesh Red Crescent Society

Anticipation Hub

For more information about anticipatory action, please visit the **Anticipation Hub.**

You can learn more about anticipatory action in Bangladesh on the **Anticipation Hub's global map.**

References

IFRC. *Bangladesh: Cyclone Final Report Early Action.* Geneva: IFRC, 2020. **bit.ly/3QuS74H**

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