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Bangladesh: Cyclone Early Action Protocol summary

 International Federation
of Red Cross and Red Crescent Societies

EAP APPROVED December
2018
EAP NUMBER EAP2018BD01

20,000 of people to be assisted
Amount Swiss francs: 182,996

EAP timeframe 5 Years
Early Action timeframe 1Month

The IFRC Forecast based Action (FbA) by the DREF Fund has approved a total allocation of CHF 182,996 from its Forecast-based Action (FbA) mechanism for the Bangladesh Red Crescent Society. The approved amount consists of an immediate allocation of CHF 48,679 for readiness and pre-positioning and CHF 134,317 automatically allocated to implement early actions once the defined triggers are met.

The FbA by the DREF is a Forecast-based Financing mechanism managed by the DREF. Allocations for the FbA by the DREF are made from a separate financial component of the DREF (MDR00004) and do not affect the reserves of the DREF appeal code MDR00001. Unearmarked contributions to replenish the allocations are encouraged.

Summary of the early action protocol

Bangladesh has two cyclones and one flooding season, leading to recurring disasters on a yearly basis. Cyclones have a major impact on the population of Bangladesh; over the last 10 years, cyclones have affected more than a million people in Bangladesh when they have made landfall in the region. According to historical data of Regional Specialized Meteorological Centre (RSMC) in New Delhi, from 1891 to 2015, 89 cyclones made landfall at the Bangladesh coast among which 47% were Cyclonic Storms (CS) and 53% were Severe Cyclonic Storms (SCS). Historically, the Bay of Bengal has witnessed many cyclones causing enormous disruptions, damages and remarkable number of casualties. As one of the major hazards in Bangladesh, cyclones cause loss of life and livelihoods in the coastal area with 35 million people. The population is vulnerable to cyclones associated with tidal surge particularly in the pre-monsoon months of April-May and post-monsoon months of October-November.

The FbF Early Action Protocol (EAP) for cyclones covers the 13 sea-facing coastal districts in Bangladesh. The EAP will be implemented by Bangladesh Red Crescent Society (BDRCS) with the technical support from German Red Cross (GRC). The pre-identified early actions can reach up to 20,000 people in the forecasted area. The lead time for cyclones is 30 hours, this means that the early actions need to be implemented in the 30 hours between a reliable forecast and the cyclone landfall. The Bangladesh Metrological Department (BMD) forecasts the cyclone (wind speed, storm surge and landfall as well as rainfall) when a depression forms in the Bay of Bengal and assesses the likelihood of it forming a cyclonic storm. The forecast is mainly based on the international Weather Research and Forecasting (WRF) model.

Considering the 30 hours lead time for cyclones; EAP has been developed with consultation with key relevant departments of BDRCS and key external stakeholders. The EAP will be triggered based on forecast provided by BMD and IMD along with global forecast models. This EAP provides step-by-step instructions to implement the selected activities, at the time it is activated. The EAP defines clearly: who takes what action when, where, and with what funds.

Following key early actions at the cyclone shelters in the community level have been identified:

- Distribution of food (flattened rice, sugar, high-energy biscuits) and drinking water.
- Provision of basic first aid at the cyclone shelters.

- Evacuation transportation with local tractors of people with their movable assets and livestock to the cyclone shelters.
- Installation of artificial light facilities at community cyclone shelter at night.

The early actions are aimed at reducing the impact by providing people an incentive to evacuate to the cyclone shelters. By providing evacuation transportation for people and livestock, the evacuation ratio can be increased thereby reducing both the loss of life as well as the loss of livelihood due to livestock mortality. The total number of cyclone shelters and beneficiaries will be covered by this EAP depending on the cyclone landfall area, access to cyclone shelters, safe space for keeping livestock etc.

The operational strategy

1) Who will implement the EAP – The National Society

Bangladesh Red Crescent Society (BDRCS)

The BDRCS is present in all 68 districts of the country with around 464 full time staff and more than 720,000 volunteers. Given the recurring natural hazards, BDRCS has extensive experience in responding to cyclones, floods, and other disasters and is coordinating the humanitarian response in close coordination with the government and Red Cross Red Crescent counterparts. The Forecast-based Financing (FbF) approach suits in BDRCS' Disaster Risk Management (DRM) department and is actively supported by the GRC and the Red Cross Red Crescent Climate Centre (RCCC) with technical expertise. BDRCS DRM department has been providing orientation and training to respective unit level officer (ULO), executive members, secretary, vice chairman, Chairman and Red Crescent Youth (RCY) volunteers of concern BDRCS district branch on the FbF EAP with technical support from GRC. BDRCS has developed the FbF EAP in line with the organisation's Strategic Plan for 2017-2020. BDRCS has been working closely with the national key stakeholders such as the Cyclone Preparedness Programme (CPP), Bangladesh Metrological Department (BMD), disaster management department (DDM) etc to ensure coordinated and effective measures. In addition to that strong linkages with BDRCS' Disaster Response (DR) department are established to support the EAP implementation and facilitate the link with a potential emergency appeal operation. BDRCS has a Cyclone Contingency Plan to carry out the humanitarian actions during times of emergencies. According the contingency plan, BDRCS open the control room, call emergency coordination meeting, mobilized its resources to address the need of most vulnerable families.

Cyclone Preparedness Programme (CPP)

The CPP is a joint disaster management program of the Government of Bangladesh and BDRCS, established in 1973. The CPP disseminate the early warning through more than 55,000 volunteers in 13 coastal districts. The CPP provided guidance on the feasibility of early actions and strategic advice on the relevant linkages with field-level actors, such as Union Disaster Management Committees (UDMCs), shelter management committee. Since the CPP has the largest humanitarian presence in the coastal districts through its community-based volunteer system, the CPP volunteers will play crucial implementing role in EAP at the community level.

German Red Cross (GRC)

With more than 30 years of presence in Bangladesh and its global FbF experience, the **GRC** is a strong technical partner for BDRCS. GRC provide has been providing technical supports to develop and to implement the EAP. In close collaboration with BDRCS' DRM department, GRC facilitates partnerships and alliances within the Red Cross Red Crescent movement as well as other humanitarian and governmental partners such as the World Food Programme (WFP), DDM etc.

Red Cross Red Crescent Climate Centre (RCCC)

The **RCCC** will extend its supports to anticipate changes in climate-related risks and provides technical support by analysing climate data for improved early action triggers for BDRCS. The RCCC was instrumental in developing the trigger for cyclones and will be consulted while trigger conditions are being reached. The RCCC Technical Adviser based in Dhaka together with BMD will monitor the forecasts and trigger conditions.

IFRC

IFRC is involved in the broader strategic discussions of the FbF implementation and facilitates close cooperation within the Red Cross Red Crescent movement as well as with other humanitarian and governmental partners. During the implementation of the EAP, IFRC will provide financial support from DREF and provide guidance for the procurement, financial and PMER processes.

American Red Cross (AmCross)

As a strategic partner of BDRCS, the American Red Cross has been actively supporting the FbF approach through its ongoing projects and will further support BDRCS branches to strengthen their capacity through providing evolving funds for response, which will be around USD65,000 (approximately CHF65,234) in total. This fund will enable BDRCS branches to implement the early action activities once the EAP is activated. The fund used for early action will be later on reimbursed to those branches through FbA DREF pot.

Government of Bangladesh's Department of Disaster Management (DDM)

Through its extensive humanitarian programming, BDRCS has already an excellent collaboration mechanism set up with the Department of Disaster Management which is strengthened through the advocacy for the FbF approach. In turn, DDM supports BDRCS' EAP by granting access to government data on vulnerability and by discussing best approaches to implement early actions in a logistically feasible way. The FbF approach provides an opportunity for DDM to adopt a more forward-looking humanitarian way of working and include a higher number of early action activities as part of its response plan. During an activation, DDM will be informed of the early action implementation.

Bangladesh Meteorological Department (BMD)

Bangladesh's Meteorological Department is the country's authoritative institute for monitoring cyclone forecasts and issuing cyclone warnings that trigger government response. As such, linkages already exist with the CPP and DDM as BMD's forecasts and warnings are used for direct humanitarian response. For the FbF approach, BMD was actively involved in the trigger consultation and has taken the lead of a methodology committee consisting of national humanitarian and government stakeholders that defines and reviews the trigger thresholds for natural disasters. For the cyclone trigger, BMD will provide up-to-date forecast information to BDRCS to ensure a lead time that allows for the quick implementation of the EAP's early actions.

2) How will the EAP be activated - The Trigger

Since an automatic system to monitor the forecast does not exist, the RCCC technical advisor together with BMD will monitor the forecast and inform about the trigger activation. The trigger will be activated when BMD issues a forecast of a cyclone making landfall in Bangladesh with wind speeds greater than 125km/h. This corresponds to a return period of approximately 1 in 5 years (this is an average over time; it is even possible to have more than one trigger in a given year). Once the trigger is reached, BDRCS DRM Director in consultation with BMD and RCCC will inform the implementing partners about the go ahead for the early action activation. Simultaneously, a forecast map will be produced showing which unions in Bangladesh are expected to experience winds greater than 125km/hr. This forecast map will then be combined with an exposure map, to estimate the percent of houses that could be at risk of destruction in each union. All unions with greater than 25% of houses at risk will be placed on a "priority" list. The unions on the priority list will then be put in order according to the vulnerability index. The EAP will be implemented in as many unions as possible, starting with the most vulnerable on the priority list and proceeding down in order of vulnerability. All districts that have more than 25% of households potentially damaged will be prioritized for intervention.

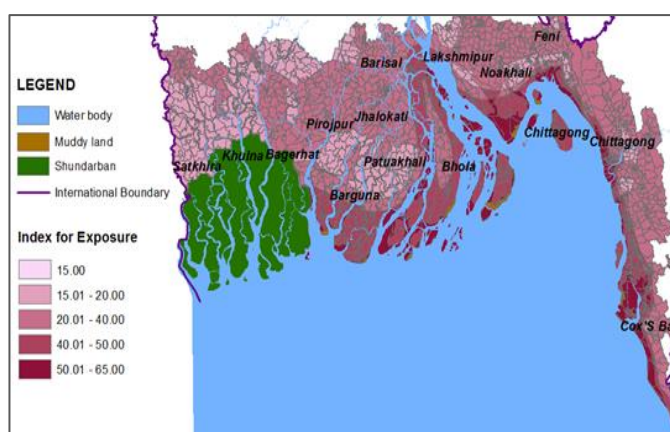


Figure 1: Exposure Map

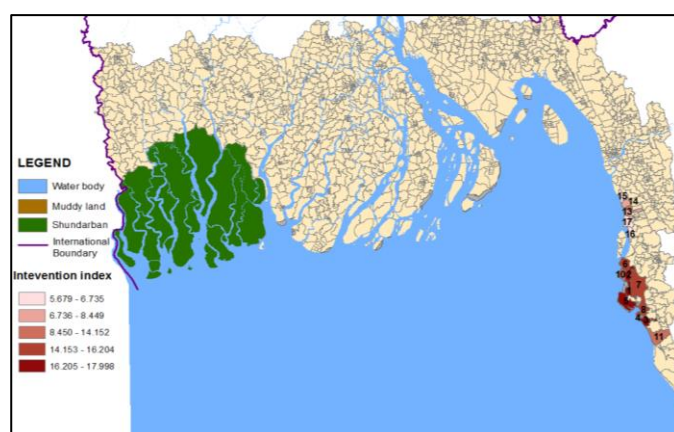


Figure 2: Intervention Map

There is no stop mechanism envisaged in this EAP due to the short lead time. It might be possible that people will be transported to cyclone shelters and receive necessary assistance through the EAP, but the cyclone will finally not make landfall. There is a potential risk that the beneficiaries might not trust future warnings about an impending cyclone and will not evacuate to the evacuation shelters.

3) How will the EAP reduce the impact on the population – The early actions

Through interviews from an impact data survey and community consultation in the eastern coastal districts affected people stated that the lack of transportation provision for both people and livestock; and the lack of food and water at the cyclone shelter deterred them from evacuating to a cyclone shelter. This is also supported by BDRCS and CPP who have volunteers on the ground in the cyclone prone areas and reported the same findings. The selected early actions can act as a convincing example that cyclone impacts can be further reduced with advanced actions.

The selected early actions in this EAP provide an incentive to people to evacuate out of the landfall area and thereby effectively reducing or avoiding the immediate cyclone impact during landfall like loss of life, loss of livestock's and injuries. Following key early actions at the cyclone shelters in the community level have been identified to reduce the impacts:

- Distribution of food (flattened rice, sugar, high-energy biscuits) and drinking water
- Provision of basic first aid at the cyclone shelters
- Evacuation transportation with local tractors of people with their movable assets and livestock to the cyclone shelters
- Installation of artificial light facilities at community cyclone shelter at night.

Intervention Sectors

Overall objective: Reduce the loss of lives and livestock through the implementation of forecast based early actions.

Priority Sectors



Livelihoods and basic needs

People targeted: 20,000 People

Male: 49.57%

Female: 50.43%

Requirements (CHF): 53,912

Risk analysis:

In some critical instances, cyclone early warning might not be reached at community level due to lack of trained staffs and resources. There is also possibility that the potentially affected communities do not believe in the early warning or its severity given past records of false warning. In addition to that even after properly disseminating early warning there is possibility the communities do not evacuate because of road inaccessibility, unavailability of vehicles etc.

Since there is no stop mechanism envisaged in this EAP due to the short lead time, it might be possible that people will be transported to cyclone shelters and receive food and water, but the cyclone will finally not make landfall. While providing these early actions does not carry a high risk, the beneficiaries might not trust future warnings about an impending cyclone and will not evacuate to the evacuation shelters. The food and water distributions in case of non-occurring cyclone event might be mistaken for a regular humanitarian relief distribution and affected communities need to be informed about the real reason for the distribution.

Population to be assisted: 20,000 people

Programme standards/benchmarks: This EAP design the food package according to the recommendation of food security cluster.

Output Code	Livelihoods Outcome 1: The affected population has an incentive to come and stay in the cyclone shelter resulting in fewer deaths, less injuries, fewer livestock and asset losses.	<i>Outcome indicator(s)</i> # of people reduced the risks by taking shelter
	Livelihoods Output 1.1: Basic needs assistance for livelihoods security including food is provided to the most vulnerable targeted communities who took shelter in Cyclone Shelter.	<i>Output indicator(s)</i> # of people that received dry food. # of people that brought livestock with them to the cyclone shelter
	Early action phase Error! Bookmark not defined.	Timeframe
AP008	Distribution of Biscuit / Dry food	10 hours before forecasted impact

AP008	Ensuring artificial light at the cyclone shelters	10 hours before forecasted impact
AP008	Provide transportation facilities to evacuate people and livestock	10 hours before forecasted impact



Health

People targeted: 20,000 People

Male: 50%

Female: 50 %

Requirements (CHF): 14,064

Risk analysis: First aid providing volunteers might be find difficulties during referring to nearest health service provider due to short lead time.

Population to be assisted: 20,000 people

Programme standards/benchmarks: This EAP is considered BDRCS first aid training manual and standard items in first aid box.

Output Code	Health Outcome 1: Vulnerable people's health and dignity are improved through increased access to appropriate first aid services.	<i>Outcome indicator(s)</i> % of people at the cyclone shelter that receive first aid services
	Health Output 1.1: Communities are supported by BDRCS to effectively respond to first aid needs during an emergency	<i>Output indicator(s)</i> # of people received first aid service
	Early action phase <small>Error! Bookmark not defined.</small>	Timeframe
AP022	Distribution of ORS to people who took shelter at Cyclone Shelter	10 hours before expected impact
AP022	Provide first aid support to people who took shelter at Cyclone Shelter	10 hours before expected impact



Water, sanitation and hygiene

People targeted: 20,000 People

Male: 50%

Female: 50%

Requirements (CHF): 14,978

Risk analysis: As there is no stop mechanism envisaged in this EAP due to the short lead time, it might be possible that safe drinking water will be distributed in container, but the cyclone will finally not make landfall. The beneficiaries might not trust future warnings about an impending cyclone and will not evacuate to the evacuation shelters.

Population to be assisted: 20,000 people

Programme standards/benchmarks: Considering sphere standards and local context; this EAP will cover the 2 litre of safe drinking water per person per day.

Output Code	WASH Outcome 1: Vulnerable people have access to safe drinking water during emergency	<i>Outcome indicator(s)</i> <i>% of people have access of safe drinking water</i>
	WASH Output 1.1: Communities are provided by NS with improved access to safe water.	<i>Output indicator(s)</i> <i># of people received safe drinking water</i>
	Early action phase Error! Bookmark not defined.	Timeframe
AP026	Distribution of drinking water	<i>10 hours before expected impact</i>

Strategies for Implementation: Strengthen NS Capacities

Requirements (CHF): 72,499.92

Output Code	SI Outcome 1: National Society capacity building and organizational development objectives are facilitated to ensure that National Societies have the necessary legal, ethical and financial foundations, systems and structures, competences and capacities to plan and perform	
	SI Output 1.1: NS have effective and motivated volunteers who are protected".	<i>Output indicator(s)</i> # of volunteers oriented on EAP and M&E. # of volunteers are insured. # of volunteers are mobilized
	Readiness phase Error! Bookmark not defined.	Timeframe
AP040	Orientation for the BDRCS Volunteers on EAP prior to the cyclone season	One month after approval
AP040	Orientation for the BDRCS volunteers on monitoring and evaluation (M&E)	One month after approval
AP040	Orientation for the CPP Volunteers on EAP prior to the cyclone season	2 months after approval
AP040	Ensure insurance/ accidental incident coverage for the volunteers	15 days after approval
AP040	Pre-stock the lights facilities used at the Cyclone Shelter	15 days after approval
	Early action phase Error! Bookmark not defined.	Timeframe
AP040	Coordination and active participation of RCY, CPP and community volunteers.	30 hours before forecasted impact
Output Code	SI Output 1.2: National Societies have the necessary corporate infrastructure and systems in place.	<i>Output indicator(s)</i> # of frame work agreements are in place & functioning. # of BDRCS staffs are insured. # of BDRCS staffs are mobilized
	Readiness phase Error! Bookmark not defined.	Timeframe
	AP042	Staff insurance/ accidental incident coverage
AP042	Framework agreement with suppliers ¹	15 days after approval
	Early action phase Error! Bookmark not defined.	Timeframe
AP042	Coordination and active participation of BDRCS staffs.	30 hours before forecasted impact
AP042	Deployment of NDRT/ NDWRT members	30 hours before forecasted impact
AP042	Ensure sufficient logistic arrangements are in place like vehicle, labour, stationary, printing, photocopy, banner, IEC etc.	30 hours before forecasted impact

¹ This will include conducting a feasibility study of suppliers, arranging pre-bid meeting with suppliers, and finalizing the agreement document by national legal consultant.

Strategies for Implementation: Influence others as leading strategic partners

Requirements (CHF): 25,491

Output Code	SI Outcome 2: The IFRC secretariat, together with National Societies uses their unique position to influence decisions at local, national and international levels that affect the most vulnerable	
	SI Output 2.1: IFRC produces high-quality research and evaluation that informs advocacy, resource mobilization and programming	<i>Output indicator(s)</i> 1. <i>Assessment and review of existing EAP is conducted</i> 2. <i>Evaluations (internal process, trigger and impact) of the EAP is conducted</i> 3. <i>Lesson learned workshop is conducted within 30 days after trigger.</i> . .
	Readiness phase Error! Bookmark not defined.	Timeframe
AP055	Conduct assessment and review existing EAP	<i>Throughout the EAP life span</i>
AP055	Organize meeting and workshop with relevant stakeholders	<i>Throughout the EAP life span</i>
	Early action phase Error! Bookmark not defined.	Timeframe
AP055	Conduct lessons learned workshop	<i>30 days after trigger</i>

Budget

The Early Action Protocol (EAP) seeks 182,996 CHF for the planned activities. This amount consists of an immediate allocation of CHF 48,679 for readiness activities and pre-positioning and CHF 134,317 to be automatically allocated to implement early actions once the defined triggers are met.

The activities for readiness will be captured in the IFRC Country Operational Plan (COP) following standard annual reporting. Trigger-based activities will be reported three months after implementation timeframe for the trigger-based action, after which the project will be closed.

Budget by Area of Intervention

Area of Intervention	READINESS	PRE- POSITION STOCK	EARLY ACTION	EAP Budget CHF
AOF1 Disaster Risk Reduction				0
AOF2 Shelter				0
AOF3 Livelihoods and Basic Needs		4.993	52.424	57.416
AOF4 Health			6.241	6.241
AOF5 Water, Sanitation and Hygiene			14.978	14.978
AOF6 Inclusion, Gender and Protection				0
AOF7 Migration				0
SF11 Strengthen NS Capacities	37.445		39.767	77.212
SF12 Ensure effective int'l disaster mgmt				0
SF13 Influence others as leading strategic partners	6.241		20.907	27.148
SF14 Ensure a strong IFRC				0
TOTAL	43.686	4.993	134.317	182.996

Contact information

For further information, specifically related to this operation please contact:

Reference documents



Click here for:

- [Full EAP](#)

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